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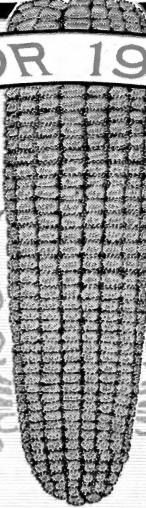
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WHEELER'S SEED BOOK



FOR 1910



DAKOTA IMPROVED SEED CO.
MITCHELL, SOUTH DAKOTA.



A

Business Proposition



SENTIMENT is all very good in its place, but cutting out all sentiment, let us get down to the business side of this proposition. You are growing your crops to make a living and should aim to get the best living that you can get from your farm or garden by the right means. If we cannot convince you that our improved seeds will accomplish this result, you have no business buying them. In the past it was thought that the farmer and gardener could be worked by every scheme that came along. That time is now past. The tiller of the soil has become a business man and handles his business on a business basis. He can no longer be humbugged by big head lines in our papers and catalogs. He no longer believes the lies that are told regarding the yields of 200 to 500 bushels of oats per acre or that certain crops will ripen over night or that big crops can be grown by sowing the seed and looking at them grow. He has come to know that all this is a fake and that when he comes to grow his crops he has to sow good seed, plow and till the soil in the best manner and harvest the crop to get the best results.

It is strange, however, that in spite of all this there are some who still believe such extravagant statements even though they have been humbugged time and time before. We cannot appeal to this class. They say that experience is a dear teacher, but however dear it may be, it is valuable if it teaches. We have no sympathy for the man who cannot be taught by experience. It has been fully demonstrated that the profitable yield of farm crops may be greatly increased by using improved seeds. The time has arrived when the progressive up-to-date farmer will use the same care and expense in obtaining the seed he plants that he has been exercising in breeding live stock.

We have organized this company to meet this demand and feel assured that it will be to the financial interest of every person who plants corn, sows grain or grows vegetables to get in touch with our methods.

As you read the pages of the book we hope that you will recognize the ring of genuineness in the reports of yields or results secured from our seeds. We do not wish you to accept any of these facts without investigation. From the experience that you may have had in the past and are wishing to profit by in the future, we cannot blame you for wanting to investigate. It is your privilege and we want you to make use of it. Investigate us. Investigate our methods. Investigate our policies. Investigate our seeds. In fact, investigate us from one end to the other and if you are not satisfied, don't buy your seeds of us. No, Mr. Farmer or Mr. Gardener, this is not "hot air." This is a cold business proposition. If you want to produce the crops that are going to keep you in condition to support your family and make something besides, you have to look for results. This is the key note of our business, namely, **results**.

If you receive satisfaction from the seeds received at our hands please remember us and come again. If we have made mistakes or you do not think we have treated you right, come back at us. If after you do this we do not give you full satisfaction, then tell others, but we wish as a courtesy you would tell us first. We have been in business two years. We have naturally made some mistakes. We will expect to make mistakes even when we have been fifty years in business. However, we have taken up every case where a mistake was made and think that we have satisfied the customer just so far as it was possible for us to do so. You know as well as we do that there are unreasonable people in this world and it is impossible to give everybody satisfaction. Try us. We guarantee results.

DAKOTA IMPROVED SEED COMPANY.

Mitchell, South Dakota.

DIRECTORS

ISAAC LINCOLN
A. E. HITCHCOCK

J. T. MORROW, President
A. A. TRUAX, Vice-President
S. E. MORRIS, Treasurer

L. R. ERSKINE
I. W. SEAMAN

W. A. WHEELER, Secretary and Manager

1900-1903 Instructor in Botany, School and College of Agriculture of the University of Minnesota;
1903-1907 Botanist of the South Dakota Agricultural College and Experiment Station



The Story of Guaranteed Seeds

I WANT to tell you something about guaranteed seeds. You already know about guaranteed paints, guaranteed hosiery and a lot of other things that are from time to time advertised under a guaranty, but I would almost be willing to wager that until you read this or have seen my seed book, you have heard nothing about guaranteed seeds.

In 1906 when I first undertook the organization of a seed company to handle pedigreed and guaranteed seeds, many of the seedsmen, who were already in business, ridiculed the idea and said that a proposition of this kind would not wear and that anyone who attempted to make any sort of a guaranty on the seeds that he sold, if not crazy, certainly was not far from it. I know that experiment station workers, farmers' institute speakers and others have emphasized the fact that seedsmen should guarantee their seeds and give all the facts relating to them. It must, however, be understood that **it is one thing to preach and another thing to practice.**

Before undertaking a proposition of this kind I thought the matter over very carefully. I did not wish to guarantee seeds that I put out unless this guaranty meant something. In the first place, the **seeds grown and sold should be right and worth the guaranty.** In the second place, whatever mistakes I may make, and I will be certain to make some, should be made right. I should be in a position to do everything that reason could ask for to rectify any wrong done a customer. In this way it seemed to me that a business could be built up on a business basis and win the confidence and patronage of the farmers not only in the surrounding territory but throughout the whole northwest. I fully realized what this proposition meant. It meant in the first place, that I would be up **against the proposition of securing stocks of varieties that were pure and would give the best yields in this territory.** Second, it would be hard work to secure growers that would take sufficient pains in sowing, caring for and harvesting crops so as to produce them free from weeds and pure as to variety. Third, it would be difficult to secure help to clean and handle the grain so as to put it up in shape fit for planting. Fourth, and by no means the least, **the testing of germination on all stocks, and the careful packing and filling of orders so that our customers would get what they wanted and not something else.** Fifth, I also fully realized that along with the just complaints that would come regarding unsatisfactory delivery or other mistakes, would come a large number, who, under cover of our guaranty, would seek protection from their own carelessness and lay up to our door many things which were purely the results of their own ignorance or lack of attention.

In spite of all these things, I launched into the seed business fully determined that **I should guarantee my seeds to be as represented.** The experiment has had a two years trial and so far as the reception to which the business has been given by our customers is concerned, the success has been very gratifying. However, it will be two or three years and possibly longer before I shall expect to be able to say that I am wholly satisfied with the results.

I have always been an optimist, having tried to see the bright side of any project. I was fully aware of the fact when I started, that seeds that were worthy of a guaranty could not be produced in a day and that it would take years on some crops before I could put out the kind of seeds that I would like to put out. However, there is always a "best" in everything. If I have put out the best that is available and have guaranteed such things to be as represented I have done everything that can be done for the time being and hope to work to the betterment of all our farm crops in the future.



W. A. WHEELER

The best evidence of the success of any business is the way it is received by its customers. It pleases us to receive the letters of approval from those who have tried our seeds and we are sorry to ever hear reports to the contrary. In this seed book I want to present both sides of the proposition so that everyone can judge for himself. It is customary in seed catalogues as well as in other catalogues to publish only the favorable side of a proposition, but did you ever imagine that there is not another side to any line of business and that every project has its "downs" as well as its "ups". It is a wise man, who, when he makes mistakes, profits by them. **It is our aim to treat every customer right.** If any one has any complaint to make and takes it to anyone besides ourselves, such complaint is not just for it should first be presented to us so that we can act on it. It is our aim to have satisfied customers but we realize that we cannot fully satisfy everyone. All we can do is to do what appears right to us.

Such, my friends, are my objects and aims in the conduct of the Dakota Improved Seed Company. They present in a few words the Story of Guaranteed Seeds. If they meet with your approval, we shall appreciate your patronage. If not, we are sorry but hope to bring you around to our position in the near future. **We can't claim the biggest seed business in the United States, but we can say that there is no one who is trying to do more for the customer he serves than we are in the conduct of this business.**

You may ask what are some of the problems that we are facing today and trying to solve. I may mention just a few of these that we are working on at the present time.

First, the production of the earliest, hardest and highest yielding strains of seed corn for the Northwest at a price within reach of every farmer,

Second, the development of an alfalfa that will withstand the rigors of Dakota winters.

Third, the improvement and distribution of high yielding stocks of oats, wheat, barley and other grains.

Fourth, the sale and distribution of hardy grass and clover seeds of known germination and purity.

There are many other problems before us, but these are a few of the most important confronting us today. When we have solved them, we will have accomplished a life work. The most that we expect to do is to hammer away on them and see what progress we can make toward their solution.

If you are interested at all in our work, I shall be pleased to have you look over this third edition of my seed book and see if there is not something of interest in it to you and some information that will help you in your work. I must admit that my seed book is not like some that you have seen. It may not have quite as many colored pictures and as many illustrations, but whatever we present are true to life for they are all photographs taken from actual products.

If you feel that we are doing the right thing, it would be an accommodation to us if you will give us the names of a few of your neighbors who are interested in good seeds, tell them about us and I will send them my seed book by the next mail.

W. A. WHEELER, Manager.

OUR GUARANTEE

We guarantee the seeds we sell to be as represented by us in that we will replace any seeds or refund the money on any seeds sold by us that prove to be otherwise.

We cannot guarantee a crop from our seeds for there are so many factors which go to influence a crop which are entirely beyond our control and we cannot conduct a crop insurance business.

We do everything in our power to see that the seeds we send out are right and assume a financial responsibility to the amount paid us for the seed purchased.

Complaints, if any, should be made as soon as the fact on which complaint is made can be determined. If this is done and the fault lies in shipping or in an accidental mixture of seeds or anything else of this kind it may be possible for us to remedy it before any harm is done.

HAVE WE MADE GOOD?

This is the question that we ask ourselves every day of our business and it is the question put to us by everyone else. We will leave it to those who have had dealings with us for a reply. You have just read on the pages previous to this a story of guaranteed seed. You have undoubtedly formed an opinion one way or the other as to whether we made a move in the right direction when we took a stand for guaranteed seeds. It certainly was a radical move for we have received letters from other seedsmen all over the United States trying to call us off and picturing to us the dire results that were sure to follow in the wake of any such radical move as this. However, it was rise or fall with us on this proposition, and these arguments have not served to quench our enthusiasm in the least.

We have made mistakes. We have seen very few people who never have made mistakes. However, we do not offer this as an excuse for the mistakes that we have made, but we do offer the following explanations in regard to some of the mistakes that are apparent to us.

In 1909 we made complete germination tests of our Stowell's Evergreen and Early Evergreen sweet corn before filling any orders. Our tests were all good. Before the season was very far advanced it was apparent that something was wrong with some of the stocks we had shipped besides what could be accounted for by the unusually wet spring. We immediately started an investigation and found that some of our stocks were very low in germination. We did everything we could to replace poor stocks and send out good ones at that time. If there is anyone who received poor seed of these two varieties last season from our house, if he will give us his order number and state the amount he had of the poor stock, we will replace it with good seed when we fill his order for 1910. We realize that much of the good sweet corn that was planted last spring did not grow, but we know that this was not the cause of the poor stand with some of our seed of these two varieties. Don't be bashful about calling our attention to this. We will not pester you with questions. All we will do will be to verify the amount of seed, variety and stock number by looking it up in our books and we will replace the seed without any further questions on our part.

Our grower of radish seeds in France when making shipment of seed, sent us a small stock labeled Scarlet Gem. When this was grown we found it to be a long red radish instead of a globe shaped radish like the Scarlet Gem. This was not our error but we sent out the seed as Scarlet Gem and we will gladly replace this season with the same amount of the same or any other variety if our customer will only write us giving order number and quantity ordered.

When we catalogued our Sixty-day oats last year we were not aware that there was about one per cent of barley in the stock. We found this out later so mentioned it in our correspondence and it, of course, showed in all the samples sent. We regretted very much the presence of this barley but as it was not present in a sufficient amount to injure in anyway the crop when placed on the market, we have not replaced orders filled with this stock. We have met with one or two criticisms of our stand on this but we have presented the matter to several disinterested parties who were capable of judging and they without exception have said that we are right in our position. For every criticism that we have had on these we have received large numbers of compliments regarding their phenomenal yields, earliness, stiffness of straw and other good points. The season of 1909 was an off year, however, for early varieties of oats. Based on the results of 1909 alone many would return to another variety but if the average of 8 years be taken into consideration, the Sixty-day still holds the lead.

On two shipments of graded corn sent out last year there was a decided mixture of white kernels with the yellow, due to mixing some way in grading. We realize that there is no stock of corn that is absolutely pure as to variety. We know that corn pollen can be carried many miles and that it is impossible to grow all our corn this distance away from other fields, but this wasn't the trouble with these two shipments. They were mixed in our warehouse. We found out how it happened and have changed things so it is not likely to occur again. In both of these cases we adjusted the matter to the satisfaction of the customers.

We guarantee the germination of our seed-corn as well as all other seeds to be up to our representation. One man bought 5 bushels of Corn Palace No. 13 from us. We guaranteed a test of over 90%. He made a test before planting and reported to us that only about 70% grew. We said then that we couldn't understand this but we guaranteed our seed so duplicated his order and at the same time started a thorough investigation of the remainder of the same stock. We found it all right so we concluded that some accident had happened to this particular 5 bushels. Late in the year I met the man who bought this corn and I asked him how it turned out. He said "not very good." I said "How is that?" "Well," he replied, "I took the second lot of corn home and tested it with no better results than with the first lot, but instead of taking it back I simply planted it thick enough in the field to make up for lack of germination. And, do you know, every kernel grew and my corn was so thick that I had to try to thin it out by cultivation. It is needless to say that the crop wasn't as good as it would have been if I hadn't planted it so thick."

Another mistake we made was with alfalfa. Two orders were put up at the same time, one for 100 pounds for one man and one for 120 pounds for another. Each was, by mistake, sent to the wrong party. The man who received the 100 pounds called our attention to the matter and we sent the additional 20 pounds. We notified the man to whom we sent the 120 pounds instead of 100 pounds and we haven't heard from him since. It's a poor rule that shouldn't apply both ways.

The above are examples of some of the incidents that arise in the selling of guaranteed seeds and show in what manner we handle our business. We haven't space to cite more instances here but will leave it to the reader after he has read this page and others in the book to answer the question for himself. Have we "made good?"



Please Read Before Ordering



WRITE plainly your name, postoffice, county and state on each and every order sent us. If shipment is to be by freight, be sure to state whether the railway station is the same as your postoffice or not.

Order early. A great many delays and other troubles can be avoided by ordering early and we will consider it an accommodation if you will do this.

Postage or Express prepaid. Always state manner you wish your order sent, whether by mail, express or freight. In considering our prices please bear in mind that we prepay the postage or express on seeds listed by the packet, ounce, fraction of an ounce, pint, third-pint, pound, fourth-pound or quart, unless otherwise stated. Seeds go by mail or express at the special prepaid rate of eight cents per pound. The smallest charge by express is ten cents. If you are located near an express office and your shipment weighs 20 ounces or more it is better to ship by express as it is safer.

Premium. On any order for seeds priced per **packet, ounce, fraction of an ounce or third-pint** to the amount of \$1.00 or more we allow a premium of 25 cents worth of seeds for each \$1.00 sent with order. This means that for every \$1.00 sent for such seed, \$1.25 worth of seed may be selected. This premium will not be allowed on seeds not included under these specifications.

Cash must accompany order and should be in the form of money order, bank draft or as currency in a registered letter. Stamps will be accepted for amounts under one dollar.

Samples. We furnish samples of our farm seeds to prospective buyers on request. These are all sent free except with ear corn on which a charge of ten cents per ear is made to cover cost of mailing. This, however, may be deducted from any order placed for the kind of corn sent in sample. Samples of corn shelled and graded are sent free.

Delays in shipment. If we cannot mail your order the same day that it is received we will mail you a card stating that we have received your order and we state the amount of money enclosed and the number of the order. If this notice or the seeds themselves do not reach you in reasonable season write to us without delay so that we can look the matter up. If your order can be filled within a few days this is all the notice we give. If for some reason shipment on a part or all of your order is unavoidably delayed, we will give you notice. It sometimes happens that we are out of stock or our stock may not be cleaned ready for shipment or there may be other reasons. Write to us if your order does not arrive in due season.

FREIGHT RATES FROM MITCHELL, S. D. IN EFFECT JAN. 1, 1910.

Given in Cents Per 100 lbs., Less Than Car Lots.

Garden seeds, grass and clover seeds and potatoes go as third class; grain and corn as fourth class. Some railroads offer a one-half seed rate between January 1st and June 30th on certain classes of seeds. When this applies to your shipment divide the rate quoted here by 2 in making your estimates of cost of freight.

	3rd	4th		3rd	4th		3rd	4th	
Salem	S. D.	.16	.12	Yankton	S. D.	.22	.17	Lincoln	Neb. .55 .45
Sioux Falls	"	.21	.16	Elk Point	"	.27	.20	Omaha	" .46 .35
Woonsocket	"	.15	.11	Bridgewater	"	.15	.12	O'Neill	" .74 .59
Wolsey	"	.18	.14	Canton	"	.21	.16	Terry	" .97 .72
Redfield	"	.22	.18	Flandreau	"	.27	.20	Miles City	" 1.04 .79
Aberdeen	"	.27	.21	Howard	"	.20	.16	Musselshell	" 1.28 1.05
Bowdle	"	.36	.27	Bradley	"	.34	.26	Lewistown	" 1.47 1.26
Mobridge	"	.40	.30	Andover	"	.32	.24	Butte	" 1.58 1.35
Orient	"	.38	.28	Milbank	"	.41	.30	Billings	" 1.32 1.11
McLaughlin	"	.54	.46	Watertown	"	.34	.26	LeMars	Iowa .38 .29
Lemmon	"	.65	.51	Faulkton	"	.34	.26	Eagle Grove	" .51 .38
Plankinton	"	.14	.10	Gettysburg	"	.38	.28	Sanborn	" .35 .27
Chamberlain	"	.20	.16	Hettinger	N. D.	.72	.55	Rock Valley	" .27 .21
Kennebec	"	.32	.28	Linton	"	.53	.41	Manilla	" .46 .34
Murdo	"	.49	.42	Edgeley	"	.47	.36	Charles City	" .43 .37
Belvidere	"	.57	.49	Oakes	"	.52	.40	Cedar Rapids	" .57 .45
Rapid City	"	.73	.64	Fargo	"	.68	.52	Des Moines	" .52 .40
DeSmet	"	.24	.18	Grand Forks	"	.94	.72	Sioux City	" .30 .22
Huron	"	.21	.18	Wahpeton	"	.61	.47	Casper	Wyo. 1.60 1.33
Miller	"	.29	.22	Jamestown	"	.96	.74	Leavenworth	Kan. .67 .47
Pierre	"	.38	.28	Minot	"	1.12	.92	Milwaukee	Wis. .67 .47
Phillip	"	.74	.59	Worthington	Minn.	.33	.24	LaCrosse	" .43 .37
Underwood	"	.90	.73	Winona	"	.43	.37	Chicago	Ill. .67 .47
Belle Fourche	"	.97	.81	Minneapolis	"	.43	.37	St. Louis	Mo. .71 .52
Buffalo Gap	"	.96	.79	Duluth	"	.67	.47	Buffalo	N. Y. .97 .68
Dallas	"	.82	.65	Marshall	"	.43	.37	Dallas	Tex. 1.51 1.31
Tripp	"	.16	.12	Crookston	"	.82	.66	Denver	Col. 1.10 .87
Armour	"	.18	.14	Fergus Falls	"	.74	.58	San Francisco	Cal. 2.20 1.90
Tyndall	"	.20	.15	St. Cloud	"	.59	.49	Seattle	Wash. 2.20 1.90
Platte	"	.27	.21	Fremont	Neb.	.55	.44	Ogden	Utah 1.83 1.50



ORDER SHEET

Dakota Improved Seed Co.

Mitchell, South Dakota

Breeders of Early Corn and Hardy Alfalfa; Growers of Improved Varieties of Farm and Garden Seeds; Recleaners and Dealers in Seeds of all kinds for the Northwest.

Please forward by.....

(State here if wanted by mail, express or freight)

Name _____

Post Office

R. D., P. O. Box, or St. No......

County _____ State _____

R. R. Station _____

(If different from P. O.)

AMOUNT ENCLOSED

Money Order

Draft :

Currency

Stamps.

Total

**PLEASE DO NOT WRITE
IN THIS SPACE**

No.

Rec'd

Filled

Check

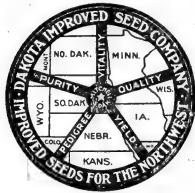
QUANTITY

SEEDS OR OTHER ARTICLES WANTED

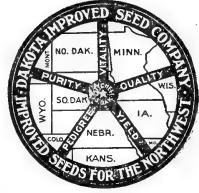
Is Your Order Complete?

Before mailing please note whether you have given your name and address in full, and also

whether you have included all items you wish in your order. To avoid misunderstandings please keep a copy of your order. ¶ **PREMIUM**—Please note that the premium of 25 cents worth of seeds extra on each dollar sent is given ONLY ON SEEDS PRICED PER PACKET, OUNCE, FRACTION OF AN OUNCE OR THIRD-PINT, and does not apply on seeds by the pint, quart, pound, peck or bushel.



CORN



OUR METHOD OF HANDLING SEED CORN

How and where our seed corn is grown: Our corn is all grown for us by special growers under conditions that are right to produce that particular kind of corn. In order to produce the highest quality of seed that will give the greatest returns possible of the best corn we study each variety carefully and handle it in such manner as to produce the results desired. For example, corn for North Dakota is secured from the best breeders and growers in the region for which we are growing the corn and is grown for us one hundred miles or more south of the locality where the corn is bred so that it will fully mature before any possibility of freezing. **We have fully demonstrated that corn so matured has a much higher vitality than corn which takes the whole season up to the last day of grace in order to ripen.** Every year we go back to the same breeders and secure carefully bred stock from which to grow the corn that we ship out. To be sure, this is growing corn south of where we expect to sell it. It must be held in mind, though, that **this corn is being bred under the northern conditions** and that the growing of the stock south for one year will make no apparent difference in the season when the corn is taken back to its home locality. The extra vitality secured in having the corn fully ripen at the season of the year when it should ripen more than off-sets any possible objection to having the stock grown south for one year. We follow this practice particularly with corn for the extreme north for it is impossible to secure varieties that will ripen there so as to produce satisfactory seed corn every year. In fact, North Dakota produces but a small portion of the seed corn that is used. If it could be depended upon to do this satisfactorily every year we would say that the seed corn grown there, properly matured and carefully handled by the best methods would be our first choice. Under the existing conditions, our method comes the nearest to the ideal for northern seed corn. We have consulted the Agronomists of the Experiment Stations of Minnesota, North and South Dakota on this proposition and have their approval of the method.

On stocks of corn for southern South Dakota, southern Minnesota, northern Iowa and northern Nebraska we do not find it so necessary to grow the corn south of its home locality for we recommend the earlier varieties that mature by the 10th to the 15th of September. Even here, however, we try to maintain the earliness of all our stocks by having them bred in the northern part of the region to which they are adapted and grow our stocks of seed a little south of this locality.

Selection of Seed Corn. All of our corn is selected first at the time of husking. This first selection includes from one-fifth to one-third of the output, depending upon the variety and the conditions of growing. If the variety contains more moisture than would be contained in good air dry corn it is racked, and selected again at the time of racking. When the corn is removed from the racks and prepared for shipping, it is all gone over again and all ears which appear to be shrunken or in other ways show signs of poor quality or vitality are culled out. Corn that is bred in the north and grown south is usually so dry at the time of husking that it shells quite a percentage from the ear in handling. Such corn is not racked, but is carefully stored in small piles or small crates in a dry room. This is given a second selection at the time it is prepared for shipment. All our corn is, therefore, selected on the ear at least twice and much of it three times before it is shelled or shipped.

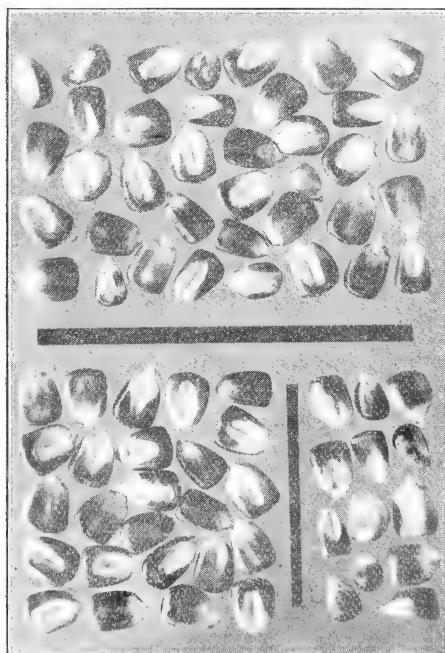
Storing and Curing. None of our corn is stored in open cribs. It is all placed in dry rooms where it is kept until time to be shipped. Corn that is husked when it contains any excess of moisture is carefully racked in frames which hold one layer of ears to each frame. There is an air space of about one inch over every layer of ears. This provides for full circulation and drying without injury to the germination. We find that the best results are secured from seed that is grown far enough south so as to mature and dry in the field by the first week in September. As this cannot always be done we find it necessary to rack some of the corn in order to dry it without any injury to its vitality.

Testing. All lots of corn that come into our warehouse are tested for germination when they come in. We also make tests on all lots during the time the corn is in store so that we know at any time just what the vitality of each stock is. No corn is considered as satisfactory to be shipped unless it shows a strong germination of over 85%. Most of our stocks show tests of from 90% to 100%. Every season we discard stocks of corn which show a germination below our standard. This corn may have been carefully selected and placed on racks in our warehouses, but still show a very low germination. In such cases we simply discard the stock and sell it for feeding purposes.

Shipping Ear Corn. Various methods have been devised for the shipping of seed corn on the ear and nearly all of them have serious objections. Sacks, crates and barrels have been used but are all open to criticism. This year we have adopted the tight wire-bound box for the shipment of ear-corn and we think we have something better than anything that has been used heretofore. A tight box prevents to a large extent the shelling of the corn in shipment and what does shell is held in the box. Neither can corn in a box of this kind be meddled with. Altogether, we are very well pleased with this method of shipping ear-corn.



BOX OF EAR-CORN PACKED FOR SHIPMENT.



RESULTS OF GRADING SEED CORN

Top—Ungraded shelled seed corn containing all large butt kernels, small tip kernels and poorly shaped kernels.

Bottom—Left—Graded seed ready for planting.

Bottom—Right—Cull corn made up of butt, tip and bad-shaped kernels screened out by the grading process.

spent in plowing and cultivating land without a crop.

Shelling and grading. All corn that is put out as shelled corn by us is carefully graded by the best grading machinery, thus removing practically all of the kernels that are off in size or shape. Grading removes from 10% to 30% of the shelled corn, depending upon the variety and condition of the stock. This process prepares the corn for the planter box. When graded corn is purchased there is not the shrinkage and waste that is obtained with corn purchased on the ear. We recognize the fact that it is recommended by many experiment station and agricultural papers that all corn should be purchased on the ear. Where seed is to be used for breeding plots or where the buyer questions the selection of the corn which is made, this is the best manner to procure it. For general planting we recommend shelled and graded seed in preference to seed on the ear because it has many advantages over corn on the ear.

CAN YOU AFFORD POOR SEED CORN?

Seed corn at \$1.00 per bushel costs from 12 to 17 cents per acre.

Seed corn at \$3 per bushel costs from 35 to 50 cents per acre.

A bushel of seed which increases the yield 5 bushels per acre at 30 cents per bushel is worth \$9.00.

Seed corn which costs \$3.00 per bushel must produce in order to pay for itself one bushel more of corn per acre than seed corn that costs \$1.00 per bushel.

The cost of a bushel of seed corn which gives a 50% stand is \$12.90 spent as rent of land not producing anything, and time



This Page is Worth Reading



THE COST OF A BUSHEL OF POOR SEED CORN

There is no one factor in successful corn growing that is more important than the choice of seed. Many will admit that a bushel of poor seed corn is an expensive investment, but very few realize how expensive it is and make a mathematical calculation to demonstrate. For the benefit of those who have not done so we present here a few points for the grower to consider.

Anyone travelling over the country during the growing season and looking over the corn fields can not help noticing the frequent poor stands of corn. Many fields have no more than a 50% stand while a large number go much below this, even having as low as 20% to 30%. Let us stop for a moment and consider the actual cost of a bushel of seed corn that gives a 50% stand. We will say that the original cost of the seed was \$1.00 per bushel, which is about as low as any seed could be purchased or taken from the crib. This bushel of seed will plant from six to eight acres of ground. In order to be on the right side in our calculations we will say that a bushel plants six acres. In the 50% stand there would be just half of the number of stalks that there should be to cover the area of ground. Therefore, the farmer is planting and cultivating the six acres while he should be planting and cultivating only three acres, or rather, three acres of ground is not giving any returns for each bushel of corn planted. The cost of planting this three acres from which he gets no returns would be about 60 cents. The cost of cultivation would be about 40 cents per acre for each cultivation. For the three acres and four cultivations it would be \$4.80. The rent of three acres of good corn land at \$2.50 an acre would be \$7.50. The total cost of this bushel of poor seed corn in time and money spent on three acres giving no returns would be \$12.90. If the farmer plants 60 acres of corn, the 10 bushels required to plant the 60 acres would cost him \$129.00. This estimate does not take into consideration the possible profits that might be obtained from growing the corn, but simply represents the actual outlay in time, seed and money. We are not considering here any of the possible yields that might be obtained from a bushel of good seed, but simply the actual loss incurred from poor germination alone. Neither are we making any estimates on any of the other factors which might go to lessen the yield from poor seed.

Other points might be cited but among them all the most important is the germination. By planting early maturing corn that has good strong germination the battle is half won.

THE VALUE OF A BUSHEL OF GOOD SEED CORN

In the same manner as we have estimated the cost of a bushel of poor seed corn, by the use of figures we can estimate the value of a bushel of good seed corn. As a bushel of corn will plant six acres or more, we will make our estimates on this basis. A bushel of seed which will increase the yield 5 bushels per acre, or 30 bushels for the 6 acres, estimating the corn in the field at 25 cents per bushel, would be worth \$7.50. A bushel that would increase your yield 10 bushels per acre or 60 bushels for the bushel of seed planted, would be worth \$15.00. A five bushel increase per acre is a very small increase to be obtained from good seed over ordinary seed. Unless you have the very best of seed on hand, or know where you can get the seed, you would better pay \$7.50 per bushel for seed rather than plant ordinary seed.

Seed corn at \$1.00 per bushel costs 17 cents per acre; if it costs \$3.00 per bushel the cost per acre would be 50 cents; \$6.00 per bushel would increase the cost to \$1.00 per acre. At 25 cents per bushel, taken as the value of the corn in the field, seed corn which costs \$3.00 must produce 1½ bushels more per acre than \$1.00 seed corn to pay for itself, and corn that costs \$6.00 must produce 3½ bushels more per acre than the one dollar corn to pay for the extra cost of seed.

Considering 50 bushels per acre as a good average yield of corn, this increase in value of good seed over the ordinary seed can be provided for in several ways. A 10% increase in stand would increase the yield 5 bushels per acre; a 10% increase in number of fertile stalks, or a 10% increase in percentage of shelled corn per ear would each accomplish the same result. There are other ways that might be cited by which a bushel of good seed corn can be made to increase the yield 5 bushels per acre, and as we have before mentioned, an increase of 5 bushels per acre or 30 bushels for the 6 acres it plants, makes a bushel of good seed corn worth \$7.50 more than ordinary seed.



Seed-Corn Situation for 1910

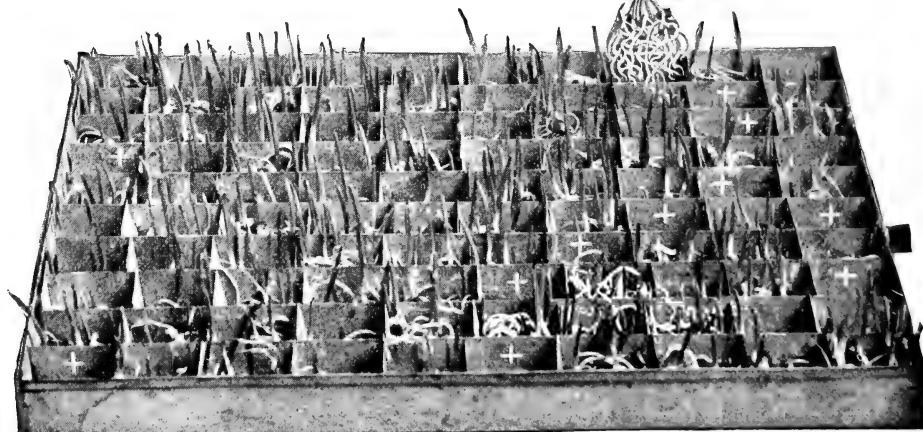


There are many people who will not believe the facts regarding the real condition of seed-corn at the present time. They are fully aware of the fact that in September 1909 the corn crop and the condition of the seed-corn appeared to be the best ever in South Dakota. The frost held off allowing the corn to fully mature. On October 12th came a severe freeze, the thermometer lowering to from 12 to 20 degrees above zero, F. The corn at this time appeared to be fully matured, but the weather had been so favorable previous to this that the corn had tried its best to keep on growing, all the time pumping water up from the soil into the stalk and into the cob. When the freeze came the cob was full of water and froze solid thus doing serious injury to the germs which lie very close to the cob. If a light frost had come about the middle of September thus checking the growth of the corn and allowing it to properly dry out before the freeze came, it is likely that the seed-corn would have been in almost perfect condition. As it is, however, only the extremely early varieties had any opportunity to cure in any shape and even many of these were injured where the ears remained in the field at the time of the freeze.

As we had not taken in all of our corn at the time of the freeze we immediately notified our contracting growers not to deliver any corn that was not housed at that time until we had made tests to verify our estimate on the germination. We found the germination was low on practically all the corn that had not been taken in so we allowed none to be delivered after that time, and from some of the fields where we expected the finest corn of the year, we were not able to take a single ear for seed purposes. One field of Minnehaha White Dent which was one of the finest fields of corn in Davison County the past year and which we expected to yield from 60 to 75 bushels per acre, was fully matured at the time of the freeze, but for the reasons above stated, was entirely destroyed for seed purposes by the freeze of October 12th.

Owing to the condition of the seed corn through a large part of the country this year it behoves one to give unusual care and attention to the securing of suitable seed for planting. Every man who has corn that he thinks is good, should test it out thoroughly before planting a single kernel of it. If his corn does not show a percentage of germination that makes it possible for him to ear test it and sow only the strong ears, he should secure seed that is of strong germination. There will be more corn ear-tested this year than ever before because of the fact that even in the best of our corn the percentage of germination will be lower than it has been for a number of years. At the Iowa State Corn Show, held from December 6th-11th inclusive, germination tests were made of all samples entered. The average germination of all tests was about 60%. When one realizes that this represents the choicest corn in Iowa, samples that were cared for and selected for exhibition purposes, you can readily get some idea of what the condition of Iowa corn is at the present time. Northern Illinois, Nebraska, southern Wisconsin, southern Minnesota and nearly all of South Dakota are practically in the same condition. Realizing this condition, every farmer should take immediate steps to secure his seed-corn for planting, for if he does not secure it at once there will undoubtedly be a scarcity of suitable seed at the time of planting and he will be left without proper seed.

In making germination tests on the seed-corn we sell, we use Holden's Ideal Seed-Corn Tester. To any farmer who wishes to test his seed-corn, we can fully recommend this tester for the purpose. It gives a better test than any improvised box tester made of sawdust, sand or anything of that kind for it gives a very accurate comparison of strong and weak kernels as well as enables one to pick out those that will not grow at all. We want to emphasize strongly the necessity of examining and testing seed-corn this year. Farmers' Institutes, farm papers and Agricultural Colleges are already taking on the question of good seed-corn for this season as they realized the seriousness of the situation.



Tray of Tested Corn From Holden's Ideal Corn Tester. Cups Marked With a Cross Indicate Ears That Failed to Grow.

TEST YOUR SEED CORN WITH HOLDEN'S IDEAL CORN TESTER



No. 1—Five-Bushel Box Tester

IT will make more money than any other machine or implement on your farm. You can test 400 ears at one time in the small tester. It takes only three to four hours to fill the trays and the tester does the rest, making a thorough germination test in four days.

QUICK, SIMPLE, ACCURATE

THE HOLDEN'S IDEAL TESTER makes the test with nothing but water so you can see both the sprout and root system and save only the good, strong seed. Throw away not only the dead ears but also all weak seed. It is the only tester that will give you an absolutely accurate test. No wet sand, sawdust or cloth for mold to travel in. Cannot dry out around the edges and spoil part of your test.

*Awarded the Gold Medal
at the National Corn Exposition,
Omaha, December 9th, 1908*

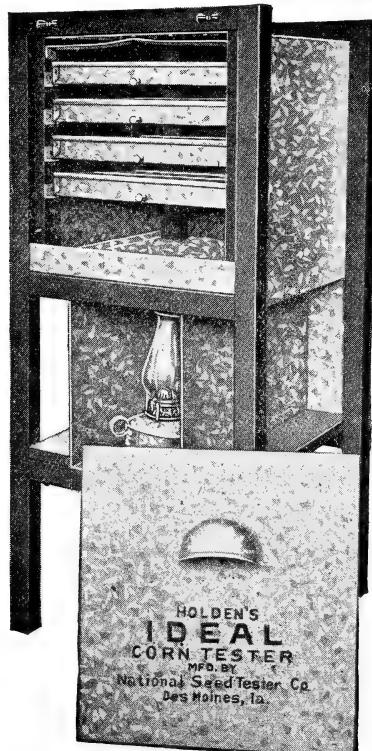
ONE EAR OF SEED
EQUALS TWELVE
BUSHELS OF CROP

DO NOT PLANT A SINGLE POOR EAR

Prices f. o. b. Mitchell, South Dakota, or
Des Moines, Iowa:

No. 1—5-bushel Box Tester, \$7.50
No. 2—5-bushel Cabinet Tester, 15.00

*Write for descriptive booklet and learn
all about this wonderful Tester.*



No. 2—Five-Bushel Cabinet Tester



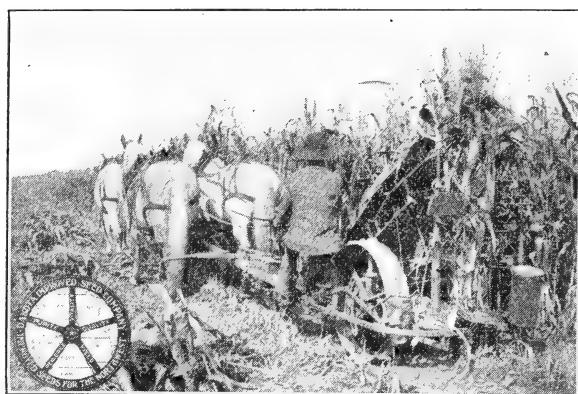
Corn for the North



We have heard people say that North Dakota would some day produce more corn per acre and better corn than Iowa or Illinois. We hardly believe so strong a statement as this, but we do know that North Dakota and other northern regions are increasing their corn acreage and yield every year and that some of the more southern localities will have to look to their laurels in corn production. The one thing that is bringing about this greater production of corn in the north is the introduction of earlier and hardier varieties of high yield and good quality. We are laboring tooth and nail to secure the right corn for the north and know that our efforts are being rewarded. In our Brown County Yellow Dent we know that we have something that will produce a crop of corn under conditions where other varieties fail. We are not bragging on its purity of type and are not putting it up against Reid's Yellow Dent for blue ribbons, but we are putting our highest recommendation back of it for the Northwestern states where "corn raising" is always followed with a question mark. The other varieties we list are all known to a greater or less extent and are known to be extra good varieties for the extreme north.

All the corn we offer deserves the name of corn. We are not taking those varieties which are not productive and which are merely grown under the name of corn, but are working for those varieties that will produce good corn and enough of it to pay the farmer for growing it. We have not, however, worked for

the large-eared varieties for we have found by good hard experience in the north that the smaller-eared varieties are far safer and much more productive than those with larger ears.



Cutting Corn With a Binder. The Best Method of Harvesting the Smaller Varieties of Corn in the North.

nation is better for northern planting than seed corn grown in the extreme north and only partly matured. The extra vitality and growth secured by our method more than off-sets any possible lengthening of season that might be obtained in the one year this corn is grown away from home. We secure the seed from which we grow our stock from the north every year and do not continue to select it at our latitude. Results that are being obtained with this kind of corn serve to show that our position in this matter is right. It has the approval of all the agronomists of the northern states with whom we have consulted regarding it.

Corn is grown in the north for other reasons than the mere production of a crop of corn. A corn crop takes the place of the summer fallow, and is a far better business proposition. If the crop of corn alone is a financial success it is clear gain because the benefits derived from the cultivated corn crop preceding a small grain crop will pay for the growing of the corn.

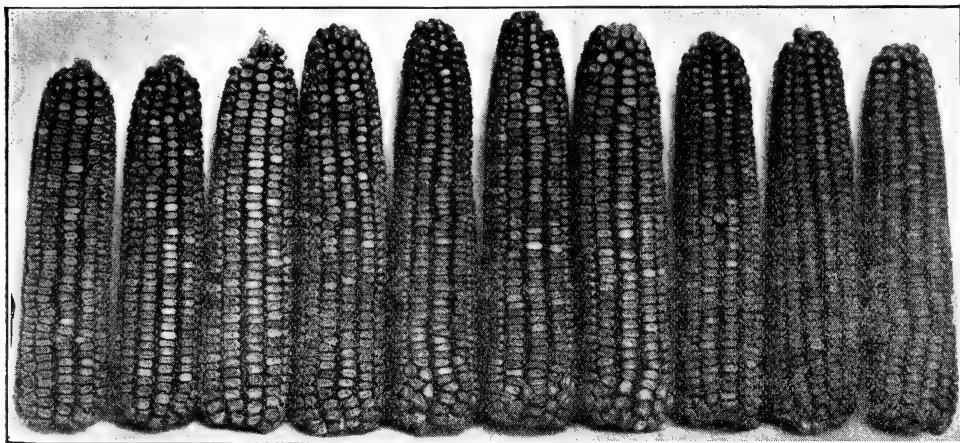
Corn growing in the north is still in its infancy. Many are still making the mistake of trying to grow the large-eared, beautiful varieties that come from the south. They would far better grow one or more of our very early sorts that have been tried out and which we know will produce corn and good corn, if anything will.

HAVE YOU READ ABOUT THE BIG 4 ON PAGES 58 AND 59?



Brown County Yellow Dent Corn

THE EARLIEST, HARDEST AND MOST DROUGHT-RESISTANT VARIETY OF CORN GROWN IN THE NORTHWEST.



Brown County Yellow Dent, Grown by B. F. Payne, Lebanon, S. D., in 1909.

In 1906 we first ran across a variety of corn in Brown County which had made a good record for yield and earliness. It has been grown there and has matured satisfactorily every year for the past 18 or 20 years. It has been tested at the Highmore Experiment Station where it yielded between 45 and 50 bushels per acre. In 1907 at the same Experiment Station this corn out-yielded all other varieties and showed a drought resistance second to none. In fact, there was no corn at the Highmore Station in 1907 that was nearly equal to this in resisting dry weather. In season it is earlier than either the Northwestern Dent or North Dakota Golden Dent. In type it resembles the Pride of the North and North Dakota Golden Dent. It has not been selected to uniformity of type and shows quite a variation in color and shape of kernel. This, however, does not injure it in any way when it comes to producing a good yield of corn under adverse circumstances. We believe that this corn planted in the northern part of South Dakota or in North Dakota is as safe a proposition as anything in the way of corn that can be secured. The seed from which our stock was grown has been grown continuously in Brown County for the past 18 or 20 years. Our stock was grown in Davison County so as to secure full maturity and a very high germination. The quality is very good. We offer it shelled and graded per bushel \$2.50; 5 bushels or over, \$2.00 per bushel. We also have a very few bushels of this corn grown at Lebanon, S. D. We offer this on the ear only at \$3.50 per bushel.

Dr. H. H. Stoner, of the South Dakota Farmers' Institute corps, writes as follows regarding Brown County Yellow Dent corn:

The Dakota Improved Seed Co.,

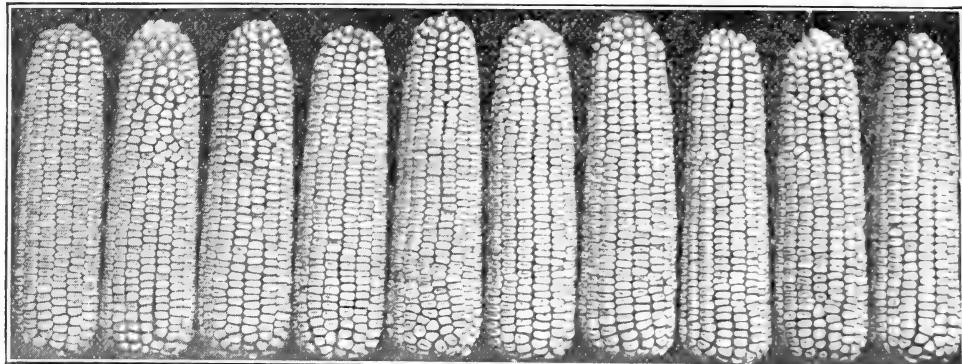
Highmore, S. D., Jan. 16, 1909.

Gentlemen:—

Permit me to speak a word of praise for your Brown County Yellow Dent corn. The half bushel of seed which I got from you last spring did not reach me until after all my other corn was planted. I planted this on a separate plot and gave it the same treatment as my other corn. We had no rain from July 4th until August 13th—at the latter date the Brown County Dent corn was well eared with an occasional ear getting ripe while the rest of my corn was standing still waiting for rain. Had it not rained on August 13th the Brown County Dent would have made good corn, as it was practically made at that time, while the other corn would have been a failure. My main corn crop the following year will be Brown County Dent, for, although it is a small corn, it is more drought resistant than any other corn in South Dakota. I would recommend its use everywhere west of the 99th parallel.

Yours respectfully,

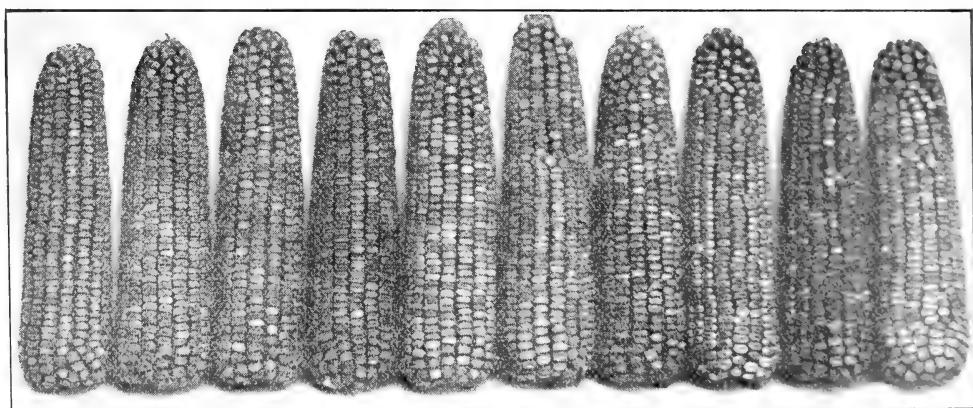
H. H. STONER,



Payne's White Dent, Grown by B. F. Payne, Lebanon, S. D., in 1909.

PAYNE'S WHITE DENT

This variety of early white corn has been named after the man who has bred and grown it for a number of years near Lebanon, S. D. Mr. Payne also grows Brown County Yellow Dent and Early Pride, but this white corn he calls his own corn and he has a right to be proud of it. In testing with the Brown County corn it appears to be as good a yielder and practically as early as the Brown County corn. In drouth-resistance it has not been compared with the Brown County Yellow Dent in other localities so no general statement can be made, but on Mr. Payne's farm it has stood the test of all conditions that have come to it during the entire time that it has been grown by Mr. Payne. This variety won first premium on white corn in the Northern district of South Dakota at the State Corn Show in December 1908. All the stock that we have to offer this year was grown by Mr. Payne and has been carefully selected by him. The stock is unusually fine. No one can go amiss in trying this corn in the extreme north. The cut on this page will give a very good idea of the type of ear. We offer it on the ear only at the following prices: Per bushel \$3.50, 5 bushels or over at \$3.00 per bushel.



Early Pride Grown by B. F. Payne, Lebanon, S. D., in 1909.

EARLY PRIDE

This variety is much earlier than the Minnesota No. 13 and within a few days as early as the Brown County Yellow Dent. It is really an early strain of the Pride of the North. Those who are acquainted with the Pride of the North know that it shells more corn in proportion to the cob than any other variety known. This holds true with this early strain. There are many other large eared stocks that are sold for Pride of the North that are not of the early type. We recommend this very highly for the northern half of South Dakota. Our stock is very good and shows a very high and strong germination. Per bushel on the ear \$3.50, 5 bushels or over at \$3.00 per bushel. Shelled and graded per bushel \$2.50, 5 bushels or over at \$2.25 per bushel.

MINNESOTA No. 13

This corn needs no recommendation from us. Anyone who has been at all in touch with corn growing in Minnesota, and the Dakotas knows about Minnesota No. 13 corn and its record. Introduced by the Minnesota experiment Station in 1896 it has been distributed across the United States and into some portions of Canada and has found a home in a number of localities beyond the boundaries of Minnesota. In Wisconsin it is known as Wisconsin No. 8. In South Dakota it is known by the Minnesota name of Minnesota No. 13 or under the name of the county or place where it has been grown, always retaining the designation of No. 13. It is generally considered as the best early corn. We now have some varieties that are earlier but it is difficult to find as early a corn as Minnesota No. 13 that is equal in quality and yield. It will go down into history as having done more to extend the corn belt in the northern states than any other one variety. We offer this corn in two strains, the Minnesota Experiment Station strain and the Corn Palace strain.



Minnesota Experiment Station Strain of No. 13 Corn.

per bushel; 5 bushels or more shelled and graded at \$2.50 per bushel.

Corn Palace No. 13. This strain of Minnesota No. 13 has given wonderful returns in southern Minnesota for the past twelve years. It is about a week later than the earlier strains of the No. 13 and has somewhat larger ear and the kernel has a fuller cap. There is not usually so much space between the rows as in the earlier strain. The kernels are about the same type and shape. In the field the corn grows about a foot or so higher. We recommend this strain for the latitude of southern Minnesota and Mitchell, S. D. At the National Corn Exposition in 1909 this strain of Minnesota No. 13 corn took the first premium for single ear in Minnesota and second premium in the ten ear class in Minnesota. Per bushel on the ear or shelled and graded \$3.00; 5 bushels or over at \$2.50 per bushel.

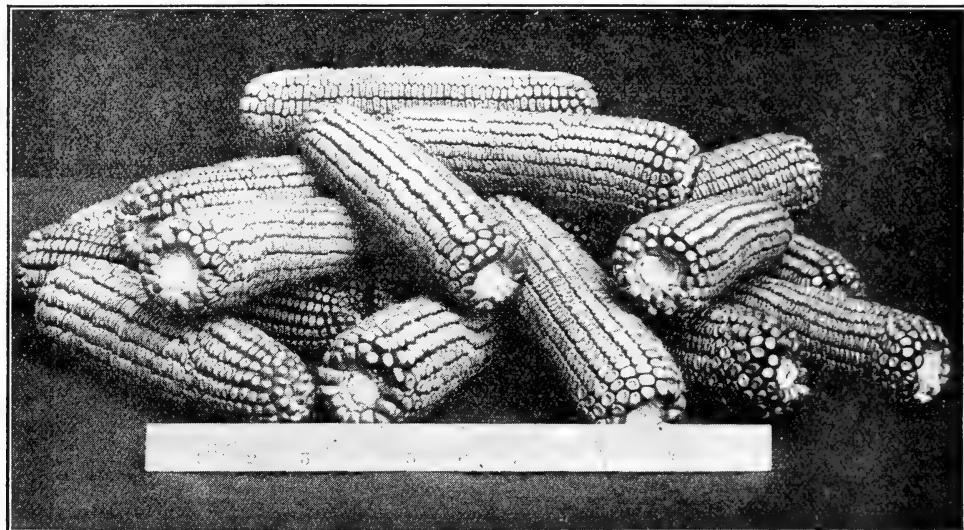
MINNESOTA NO. 23.

A small white cap yellow dent corn secured by the Minnesota Experiment station from northwestern Minnesota where it has been grown for a great many years. The station has taken it up and is breeding it for extreme earliness and high yield so as to extend the corn belt into northwestern Minnesota and make possible better systems of crop rotation. The Minnesota Station made a fine exhibit of this variety at the National Corn Exposition in 1909 and recommended it highly for northern conditions. Per bushel on the ear or shelled and graded \$3.50, 5 bushels or over \$3.00 per bushel.



Early Murdock Corn

In northern Illinois, northern half of Iowa, northeastern Nebraska, southern half of South Dakota and Wisconsin and the southern tier of counties in Minnesota there are many serious problems that come in the growing of corn. This great region happens to be in the latitude where the very large varieties of corn are occasionally caught by frost. It is true that in some years such varieties as Reid's Yellow Dent, Silver Mine and others of this season mature satisfactorily and give very fine yields. There are other years in which these late varieties of corn are caught by frost and the crop is more or less damaged. Our Agricultural Colleges, Farmers' Institutes and farm papers have been pushing early seed-corn for a number of years for this region. Some have gone so far as to say that Reid's Yellow Dent should not be grown north of Des Moines, Iowa. Others have made equally radical statements regarding the late varieties of corn.



Early Murdock Corn Grown by C. F. Maynard, Burbank, S. D.

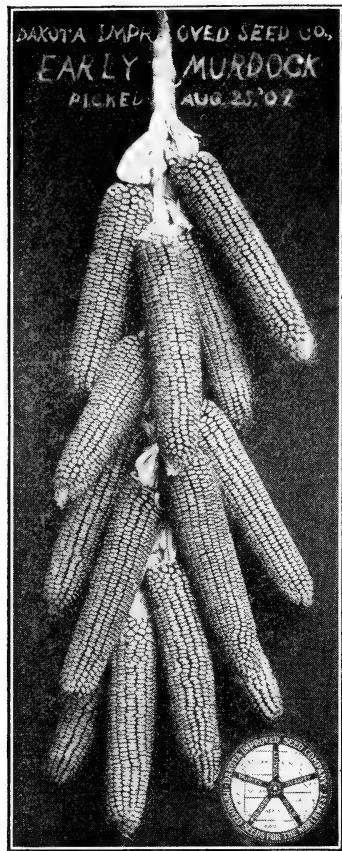
In offering the early Murdock corn we have a variety that has for the past 20 or more years been developed for earliness and yield. We think it more nearly meets our ideas of the ideal corn for the region we have mentioned than any other variety we know of. It is true that the ears are not large, but they are well formed, shell off a large percentage of corn to the ear; the kernel is deep; the germ is large

and the color is as near pure as any variety of yellow corn of equal earliness that we know of. In feeding value the Early Murdock ranks second to none. It is almost impossible to find a starchy ear in the lot. Every one who sees a pile of this corn for the first time remarks "What a beautiful corn" and it certainly is true that the color of this corn is beautiful. It has the richest golden-yellow of any corn that we handle. The cobs are nearly all true to type. One rarely finds a white or pink cob in the stock.



Box of Early Murdock Packed for Shipment.

When we first offered this corn in 1908 we were not fully aware of the value



of it for the Northwest. Since trying it out for two years and getting results from all those who have purchased seed of us, we find that we made no mistake in offering it and are in a position now to put our unqualified recommendation back of it. We have shipped it into all parts of northern Iowa, southern Minnesota, southern South Dakota and northeastern Nebraska and so far as reports are received it has made good everywhere that it has been sent. Many even say that it is nearly as early as Minnesota No. 13. In our locality, however, we consider that there is a week or ten days difference between the two. The cut of a braid of ears shown on these pages is from a photograph taken of corn picked from our field on August 25th. These ears were ripe and out of the way of frost at that time. Two-thirds of the field was in practically this condition.

Our stock of Early Murdock corn for this season has a germination test of 90% or better. This germination is a strong germination and does not include weak sprouts. We have on hand stocks of both 1908 and 1909 growing. So far as tests have been made to date they are of about equal germination and quality. If anyone is particular

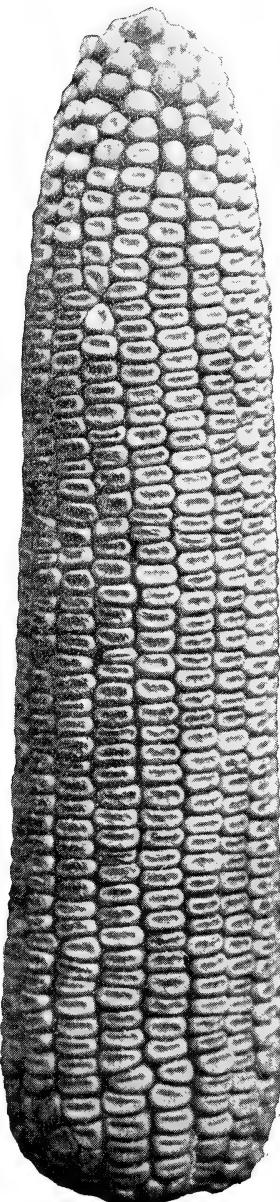
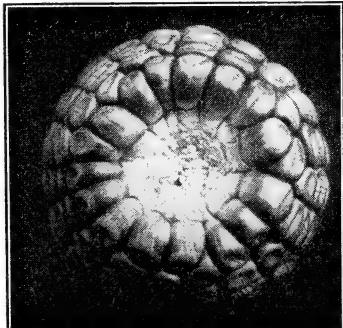
in getting the crop of one season or the other, we can fill the orders as designated until one or the other stock is sold. Considering the quality of seed-corn in general this season, this is certainly a very fine stock of seed-corn. We realize that it does not test 99 and 100% as did our last year's stock, but there are very few stocks of seed-corn this year that will test as well as our Early Murdock.

We do not especially recommend the planting of this variety of corn north of the latitude of Mitchell or the southern tier of counties in Minnesota. We have

reports of very satisfactory yield and full maturity at quite a number of points north of this, but still we do not feel fully safe in recommending it very much north of this latitude.

Prices

Per bushel on the ear or shelled and graded \$3.50. In lots of 5 bushels or over, per bushel \$3.00.





Minnehaha White Dent

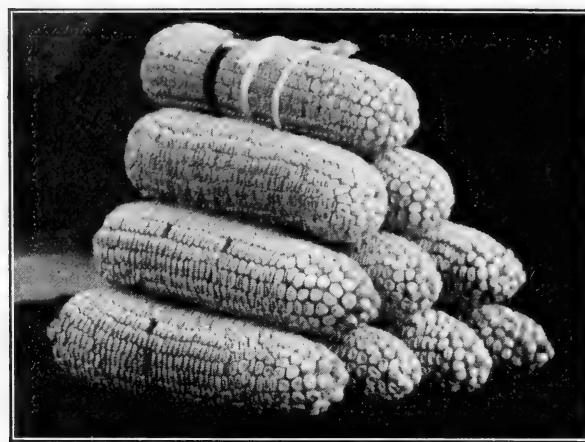


This variety of corn has been grown by Mr. A. C. Collins at Sioux Falls, S. D., for about a dozen years. During this time it has yielded from 50 to 80 bushels per acre. In point of yield we do not know that there is another variety in the southern part of the state that excels it. It is certainly a very strong strain of white dent. Our illustration shows the first prize ten ears of corn at the S. D. Corn Growers' Association in 1906. This variety also took the first premium at the

South Dakota Fair in 1909. Wherever entered this corn carries away some of the premiums. This goes to show the possibility of selecting nice show ears of this variety. All of the seed that we offer of this variety this year was picked and hung up to dry by the middle of September by Mr. Collins. The germination tests that we have made to date on this stock are all between 95 and 100%. The entire stock will probably run almost perfect as to germination. Our supply is very limited. When the stock is exhausted we will simply have to cancel orders for there is no more stock available of satisfactory quality and germination. We offer it on the ear only, F. O. B., Sioux Falls or Mitchell, at the following prices: Per bushel of ears packed in box \$3.50, 5 bushels or over at \$3.25 per bushel.

First Premium Minnehaha Dent, S. D. Corn Growers' Association, 1906.

bushel of ears packed in box \$3.50, 5 bushels or over at \$3.25 per bushel.



FODDER CORN

Fodder corn is a very valuable crop on the farm, but in the Northwest in particular it occupies a place that cannot be filled well by any other crop. It not only produces a large amount of forage to the acre, but supplies a cultivated crop that can be used in systems of crop rotation in place of the summer fallow. We all know that the summer fallow is not an economic proposition on the farm and that it is far better to grow a good cultivated crop and keep it well cultivated. In the selection of corn for fodder purposes we do not recommend planting the very large late varieties in the north because they do not come near enough to maturity to produce the largest amount of feeding value. They are mostly wood fiber and water. We recommend the early varieties that come nearly or quite to maturity for this purpose. It is not so necessary that the crop fully mature as it is with corn grown for other purposes but the nearer it comes to maturity the greater the food value and the more valuable it is to the stock feeding on it.

Fodder corn is also a good weed eradicator. When further cultivation is impossible it shades the ground to such an extent that very few weeds are developed. The demand for fodder corn this year will be more than ever before for it has been customary with farmers to use almost any corn that would grow well for this purpose. This season practically all corn left in the field after the freeze or placed in cribs, is ruined for planting purposes and it will be necessary to look for strong germination stocks for this purpose.

Northern fodder corn suitable for growing in the extreme north. We use the earliest varieties we carry for this purpose. Per bushel \$1.50, 5 bushels or over at \$1.25 per bushel.

Medium fodder corn includes varieties like the Early Murdock and others of this season. Per bushel \$1.50, 5 bushels or over at \$1.25 per bushel.

Early Sweet Fodder, very fine for early feed. Sow broadcast or in drills. Pk. 75 cents, $\frac{1}{2}$ bu. \$1.25, bushel \$2.25.

Evergreen Sweet Fodder. Tall growing sweet corn producing a large weight of foliage and stalks per acre. Pk. 75 cents, $\frac{1}{2}$ bu. \$1.25, bushel \$2.25.

NORTHWESTERN DENT CORN

This variety is a cross between a flint and a dent corn. The kernels are red and have a yellowish cap. In north Dakota this corn is grown perhaps more largely than any other one variety. It is extremely early and hardy in North Dakota and northern South Dakota. The ears are of fair size, rather long and slender. No other variety seems to have given the uniformly satisfactory returns in North Dakota that are given by the Northwestern Dent. Price per bushel shelled and graded, \$2.50; 5 bushels or over at \$2.00 per bushel. Corn on the ear, \$2.50 per bushel.

SQUAW FLINT CORN

There is always a demand for Squaw Flint corn for planting on the new land in the northwest. It can always be depended upon to produce some corn if planted any time before the 4th of July. We think some other varieties in most cases are better for planting even under these conditions, but we may be mistaken. Our stock of squaw flint corn is particularly well selected and represents a very good type of flint corn. Shelled and graded stock per bushel, \$2.50; 5 bushels or over at \$2.25 per bushel.



probably not be able to offer any of this variety this season.

POP CORN

There is no good reason why every farmer should not have a good supply of pop corn for his family. As easily raised as field corn, and if you have more than you need for your own use it can always be sold on the market at a good price.

White Rice. The standard sort for field culture. Our stock is very fine and well selected. It is the best we have ever seen. Try some on your farm and you will not regret it.

Queen's Golden. One of the very best varieties for popping. Very productive.

Either variety: $\frac{1}{2}$ pt. 10 cts.; pt. 25 cts., by mail postpaid. By express or freight qt. 25 cts.; pk. \$1.00; bu. of selected ears \$3.50; bu. shelled \$3.00.

Dakota Improved Seed Co.,

Dows, Ia., Aug. 22, 1908.

I never had corn grow better than the Early Murdock I bought of you last spring. It came up promptly, good color and grew steadily and uniform throughout the season. A different story might be told of some other seedsmen I have dealt with. I am glad to give you this assurance of my appreciation. No man ever succeeded very long who continued to beat his fellowman.

Yours truly, FRANK DeFOREST.

Dakota Improved Seed Co.,

Millboro, S. D., Dec. 3, 1909.

As this is the third time I am asking for your seed book, I wish to say I never before had such results from seed as I have from yours and would recommend all western and northern farmers to try your seed.

Yours as ever, J. B. TSCHETTER.

W. A. Wheeler:

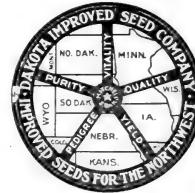
Gay, Iowa, Dec. 27, 1909.

I had some seed corn (Early Murdock) from you last spring and was pleased with the corn I raised from the seed I purchased of you. Please send me your catalog for 1910 and oblige.

C. F. McLACHLIN.



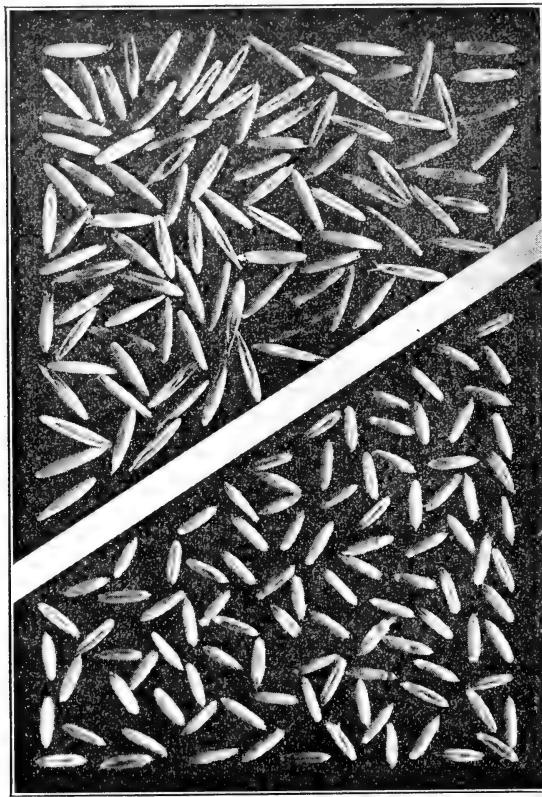
OATS



LINCOLN'S SIXTY DAY

"The Oat That is King"

Origin. This variety of oats was imported by the United States Department of Agriculture in March, 1901, under the name of Sixty-day oats. It was introduced into the northwestern states the same year. Our stock has been grown by Mr. Isaac Lincoln of Aberdeen since its introduction; hence, the name Lincoln's Sixty-day.



LINCOLN'S SIXTY-DAY OATS.

Top, 100 Grains of Oats; Bottom, 100 Kernels With Hulls Removed.

REASONS WHY YOU SHOULD GROW LINCOLN'S SIXTY-DAY OAT

It outyields all other varieties in North and South Dakota, Montana, Minnesota, Wisconsin, Illinois and Kansas, as shown by test.

It is adapted to the widest range of soil and climate of any Oat grown in the United States to-day.

It is the earliest of all oats. Ripens before or at the same time as barley.

It gets out of the way of rust, drouth, hail storms and hot winds.

It does not lodge. Growth just right to stand up under conditions where other varieties fall.

It has the thinnest hull of any variety. Eighty or ninety bushels of Sixty-Day Oats are equal in feeding value to one hundred bushels of most standard varieties. It leads all varieties commonly grown, in weight per bushel.

Description. This is a vigorous growing oat, but not rank. Straw is short and stiff, thus reducing the tendency to lodge. The grain is light yellow in color and small, but is produced in great numbers. The hull is extremely thin. The grain weighs unusually high per bushel. Throughout the Great Plains region this oat not only usually leads in yield per acre, but in weight per bushel. And the fact that it ripens from 7 to 21 days earlier than other varieties gets it entirely out of the way of rust, drouth and hot winds which are fatal to so many oats. This explains its immense yield per acre as compared with later varieties.

Region to Which Adapted. The Sixty-day oat is particularly adapted to most of the Great Plains region including North and South Dakota, Montana, Minnesota, Wisconsin, Iowa, Nebraska, Kansas and Missouri. It is undoubtedly also adapted to other regions where it has not been tried.

Seeding: Lincoln's Sixty-day Oats do not need to be seeded as heavily as other varieties. In the north two bushels per acre is a good seeding. We think this is plenty for the south but some recommend $2\frac{1}{4}$ to $2\frac{1}{2}$ bushels per acre.

RECORD OF LINCOLN'S SIXTY-DAY OATS.

South Dakota. Average yield of 19 bushels per acre more than its nearest competitor on a 7-year test at Brookings Experiment Station. See Mr. Lincoln's record in table.

Minnesota. Highest yield in seven year test at Agricultural Experiment Station, St. Anthony Park, Minnesota.

Illinois. Highest in yield at Agricultural Experiment Station, Urbana, Illinois. Recommended as good nurse crop for clover. Farmers are well pleased with them.

Iowa: Outyields all others in unfavorable seasons. Has thinnest hull of any variety.

Kansas: Highest yield in three year test at Agricultural Experiment Station. Highly recommended.

Missouri: Highest in yield with the possible exception of Texas Red Rust-proof.

Wisconsin: Have given as good yields as any variety during the time they have been tried.

Nebraska: Highest in yield throughout the state. Recommended very highly by the Agricultural Experiment Station at Lincoln.

Montana: In a test on five dry-land farms for three years the Sixty-day Oat averaged $7\frac{1}{2}$ bushels more than any other variety.

We can furnish seed which we guarantee to be of high germination and free from any noxious weed seeds. All of our stock contains a small percentage of barley. We have secured a small amount of pure hand-picked stock free from barley for our own planting in 1910 but will not have any of this to offer until 1911. Our prices f. o. b., Mitchell, S. D., are as follows: Single bushel \$1.15; sack of $2\frac{1}{2}$ bushels \$2.50; 4 sacks or more of $2\frac{1}{2}$ bushels each at \$2.25 per sack. Lots of 50 bushels or more, 85 cents per bushel. Sacks are included and weighed in at these prices.

KHERSON

The description of the Sixty-day will answer well for the Kherson, for the two varieties cannot be told apart when grown together, they appear to be different importations of the same type of oats. They may, however, yield somewhat differently under the varying conditions in our territory and so we offer the Kherson oat as well as the Sixty-day. The Kherson was imported from Russia in 1897, four years before the Sixty-day, and has been grown at the Experiment Station at Lincoln, Nebraska, since that time. The seed from which our stock has been grown comes from this source. Prices same as for Lincoln's Sixty-day.

SWEDISH SELECT

This variety of oats has been widely distributed through South Dakota, Minnesota and Wisconsin, and also in other states, and everywhere it has been grown it has given yields equal or better than most other varieties grown. The Experiment Stations of Wisconsin and South Dakota have probably done more towards the introduction of this variety of oats than has been done in any other way. In Wisconsin it is recommended above all others. At the Highmore Experiment Station in South Dakota where this variety has been grown for several years, it has won a great reputation for its drouth resistance. No other variety has shown up better in this one feature than has the Swedish Select. In the region between the James and Missouri rivers a dry period often comes in the early part of the growing season, during the month of May or early in June. At this time many varieties of oats are seriously injured by drouth. The Swedish Select, however, has shown itself capable of resisting dry weather at this season of the year better than any other variety. In fact, it has produced some of its largest yields in seasons which were dry during the early summer months. Where these oats have been grown west of the Missouri river they have given excellent results.

Per bushel \$1.25; sack of $2\frac{1}{2}$ bushels \$2.50; 4 sacks or more at \$2.25 per sack.



BARLEY



The season of 1909 was one of the most unfavorable seasons for barley that we have known in South Dakota. The yields were light and the quality poor. We have been able to secure some fair stocks of barley to offer of some of our varieties. With others it has been almost impossible for us to secure any seed of satisfactory plumpness and germination. In the selecting of varieties for seed purposes the color is not the most important consideration. Germination and plumpness are far more important so we have considered these two factors in the selecting of our seed for the coming season and have to a large extent disregarded color.

Oderbrucker. A six-rowed barley that has been very highly recommended in the northern states, especially in Wisconsin where it has been distributed by the Wisconsin Experiment Station. Our stock two years ago came from this source. Its growth and yield in South Dakota have been very good.

Minnesota No. 105. Recommended by the Minnesota Experiment Station as the best barley for Minnesota. It has given the highest record for yields throughout Minnesota and has also given very good results in South Dakota and other states.

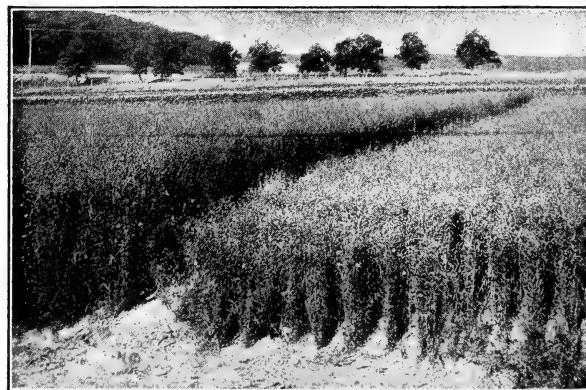
Minnesota No. 6. The highest yielding barley at the Brookings Experiment Station in 1908 and has held the highest record for a good six-rowed barley ever since it was first tried at this station. Very similar to Minnesota No. 105.

Hanna No. 24. This variety of two-rowed barley was received by the United States Government from Austria in 1901. Since its introduction it has made a record in the northwest as good or better than any other variety. We are not sure that we will have a good stock of this to offer this season. The stock that appears available at the present time is unsatisfactory for seed purposes. If we should locate any stock of high germination and good quality, we will be able to fill orders for this variety. We invite correspondence regarding it.

Prices on any of the above named varieties: Per bushel \$1.25, per sack of 2 $\frac{1}{2}$ bushels \$2.75; 4 sacks or more at \$2.50 per sack. Write for samples and prices on larger quantities.

FLAX

The growing of flax the past two years has received an unusual impetus because of the exceptionally high prices that have been paid for market flax. The difficulty that has been had in securing of good seed is largely due to the fact that practically all flax seed in the market to-day has a small percentage of mustard seed present in the stock. It has been almost impossible to secure any that was absolutely free from this noxious weed. We have exercised the greatest care in this respect but even at this we have occasionally found a seed of mustard in our stocks. The supply of Minnesota No. 25 flax this year is very limited. When our stock of this is exhausted we will probably have to offer some of the common flax specially re-cleaned and graded for seed purposes.



Minnesota No. 25 Flax on the Minnesota Experiment Farm.

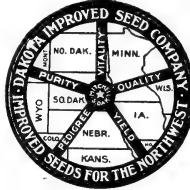
grown flax for seed purposes that we can offer at furnished on application.

Minnesota No. 25. This variety has given yields from 2 to 8 bushels more per acre than any other variety in Minnesota, North and South Dakota. At present it is the only pedigreed flax which we can recommend to growers in the northwest. It is not only high in yield, but is largely wilt resistant. We do not claim it to be wilt proof as some growers do, but we know it will stand up when other varieties go down with wilt. This stock is a distinctly pedigreed variety and must not be compared with the common flax. Per bushel \$3.00; per sack of 2 $\frac{1}{2}$ bushels \$6.50; 4 sacks or more at \$6.00 per sack. Prices subject to change. With the price of market flax at this writing over \$2.00 per bushel and steadily going up, we cannot guarantee to hold these quotations for any length of time.

Recleaned Dakota Grown Flax. We will probably be able to secure some extra recleaned home-reasonable prices which will be



WHEAT



MINNESOTA NO. 169

As the South Dakota Bearded Fife has the highest record of yield in South Dakota and Minnesota and certain other territory, so the Minnesota No. 169 keeps the highest position for quality as a milling wheat. It has won a national reputation in this respect.

In Minnesota and some parts of North and South Dakota it appears to top the list for yield and we are inclined to think that taking everything into consideration that it is one of the finest wheats known today in the Northwest. In Minnesota it has yielded from 3 to 5 bushels more per acre than the common varieties. In the northeastern and southeastern portions of South Dakota it has yielded well and has also become very popular. For anyone who has grown any blue stem varieties and has been successful with them we can recommend this as we know of no better variety for the northwest. We have a limited quantity of pedigree, graded stock which we can offer at the following prices either f. o. b. Mitchell, S. D., or

stock which we can offer at the following prices either f. o. b. Mitchell, S. D., or Dundas, Minn.: Per bushel \$2.00; Per sack of $2\frac{1}{2}$ bushels \$4.75; 4 sacks or more at \$4.50 per sack. This seed is not only cleaned, but graded and put in the very finest condition for sowing.



Minnesota No. 169 Wheat Yielding 39 Bushels Per Acre On Minnesota Farm.

DURUM WHEAT

In a large part of North and South Dakota the durum wheats have come to stay. They are particularly adapted to the dry regions and therefore do much better in the western portion of these two states. We do not recommend the growing of the durum wheats on an extensive scale much east of the James River in South Dakota. We do not recommend them anywhere in Minnesota as the returns have been poor. In many of the drier sections they have been known to give returns from 35 to 40 bushels per acre in seasons when the best bread varieties yielded from 12 to 18.

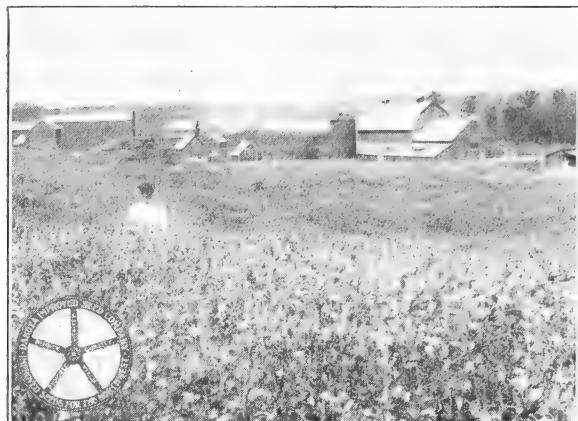
Arnautka and Kubanka No. 5639. Both of these varieties have topped the list for yield and quality at the experiment stations of North and South Dakota. The prices for either variety are as follows: Per bushel \$2.00; Per sack of $2\frac{1}{2}$ bushels, \$4.00; 4 sacks or more at \$3.75 per sack.

WINTER WHEAT

The growing of winter wheat is still more or less of an experiment in North Dakota and northern Minnesota, but it is coming to be grown to a large extent in the southern half of Minnesota and in South Dakota. Turkey Red is the standard variety. The stock that we have offered the past two years has been grown from seed that has been grown at the Experiment Station, Brookings, S. D., for five or six years. This seems to have stood the test for hardiness better than most of the other stocks. We will place reservation orders for 1910 at the following prices: Per bushel \$2.00; 10 bushels or over at \$1.80 per bushel, sacks included at this price.



CANADA FIELD PEAS



Canadian Field Peas, Grown on the Jean Duluth Farm, Duluth, Minnesota.

and will fill orders from this stock as long as it lasts. Per bushel \$2.50; 10 bushels or more at \$2.35 per bushel. Prices subject to change on account of short crop.

EMMER or SPELTZ

This crop is becoming more popular every year. Very few farmers in the Northwestern Great Plains Region can afford to be without it. It produces a good yield under adverse circumstances where other crops would fail. It will stand more dry weather than any other grain crop with the possible exception of durum wheat. It produces more food value per acre than any of our other grains and is a valuable feed for all kinds of stock. The plant is almost entirely free from rust, smut and other grain diseases.

We wish to do everything we can to encourage the growing of Emmer in the Northwest. Farmers in the semiarid portions of the Great Plains Region who depend on such crops as Swedish Select Oats, Hanna No. 24 Barley, Brome-grass and Alfalfa need have no more fear of crop failures than those in the regions of more abundant rainfall. Emmer should occupy a place in every dry-farming rotation.

Price per bushel of 40 lbs., \$1.00; 100 lbs., \$2.00; 500 lbs., or over at \$1.85 per cwt.

BUCKWHEAT

More buckwheat has been grown in the west the past two years than heretofore. The springs of 1908 and 1909 were unusually wet so that much of the land could not be sown to the common crops in proper season. Much of this land was put into buckwheat. So far as we have been able to determine the yields have been very satisfactory. Buckwheat may be used as a catch crop to sow late in the season or it may be used to turn under to improve the condition of the soil.

Japanese Buckwheat. In most localities this is considered the most productive and best variety of buckwheat. The grain is dark brown, large and has sharp corners.

Silver Hull Buckwheat. An older variety than the Japanese and a great improvement over the common kind of buckwheat. The grain is gray in color instead of brown and has a more rounded form instead of angular like the Japanese.

We can furnish good seed of either variety at 60 cents per peck; \$1.75 per bushel; 5 bu. or over at \$1.50 per bu.

The middle west or semi-arid region of the great Plains has not been considered the best locality for the growing of field peas. Results, however, that have been obtained in the last few years have been remarkable. The demand in this territory is steadily increasing. We have been very much surprised at the demand for field peas. They can be sown alone or with oats. We recommend the sowing of a mixture of 2 bushels of peas to one of oats. The crop can then be cut with a binder. This mixture is also good as a soilings crop or for hay as the oats serve to keep the peas up off the ground. When grown alone they are very subject to mildew. We have secured an extra fine stock of white Canada Peas from the Minnesota Experiment Station this season



MILLET

Dakota Selected Kursk. Our Kursk millet has made good. We put this out to the farmers of the northwest in 1908 for the first time. As both a hay and seed producer it ranks very high as shown by results secured the past two seasons. This variety has been grown at both the South Dakota Experiment Stations every year since it was introduced in 1898 from Kursk, Russia. It has given excellent results during the whole time and in dry years the weight and quality of the hay has been far ahead of the common German or Hungarian millet. In favorable seasons the difference has not been so marked, but is always in favor of the Kursk. Our stock is grown from selections that were made at Brookings by the writer in 1904.



HEADS OF MILLET.

Black Voronezh at the Top, Kursk Hungarian, Common and German Millet Below.

broom corn or hog millets it outranks them all in yield at both Highmore and Brookings. It has given an excellent account of itself. So far as our records show where it has been distributed throughout South Dakota it has given remarkable yields of seed. This millet is not used for hay but is grown only as a seed crop and is used to feed chickens and hogs. We do not recommend it for very moist localities for it succeeds much better under drier conditions. On moist land it is often injured by weeds as it is not in any sense a weed destroyer. On dry land, however, either on new breaking or old ground, it yields all the way from 20 to 50 bushels per acre of very valuable grain. Prices same as for Kursk millet.

It has been customary among seedsmen to recommend the southern German millet to grow in the north in preference to the northern grown. In dry sections we do not think the German millet can compare with the Kursk. In a moist soil and under favorable conditions, however, the German gives excellent returns. We refer to the finer quality of German millet and not to the coarse stock that comes from the extreme south. The coarse southern seed produces a great bulk of hay, but of such poor quality that we consider it of little value. Our stock of Kursk millet this year is the finest we have ever seen. We have supplied it to seedsmen all over the Northwest. Prices for choice seed are as follows: Per bushel of 50 pounds, \$1.75; per sack of 2 1/2 bushels, \$3.50; 4 sacks or more at \$3.25 per sack.

German Millet. This millet occasionally makes a taller, ranker growth and produces a greater weight of hay per acre than the Kursk under favorable conditions. Our stock is clean and good. We offer it at the same prices as given for the Kursk.

Japanese Millet. We do not recommend this millet so far as our experience goes. It produces an abundance of hay, but is coarse and of rather poor quality. Per bushel of 36 pounds, \$1.50; per hundred pounds, \$3.25.

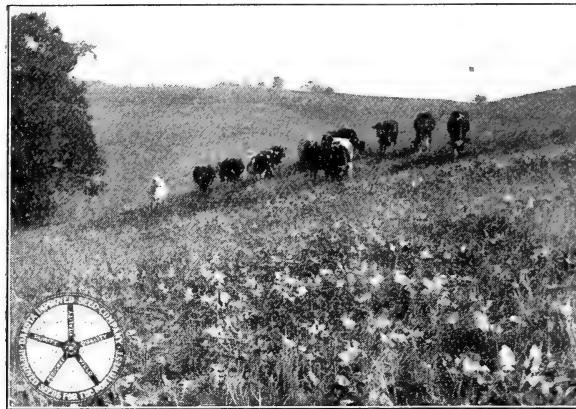
BLACK VORONEZH MILLET

This is a variety of broom corn millet imported by the U. S. Department of Agriculture in 1898. In comparison with Red Russian, Early Fortune and many other importations of

it has been distributed throughout South Dakota it has given remarkable yields of seed. This millet is not used for hay but is grown only as a seed crop and is used to feed chickens and hogs. We do not recommend it for very moist localities for it succeeds much better under drier conditions. On moist land it is often injured by weeds as it is not in any sense a weed destroyer. On dry land, however, either on new breaking or old ground, it yields all the way from 20 to 50 bushels per acre of very valuable grain. Prices same as for Kursk millet.

DWARF ESSEX RAPE

Rape can be put to quite a number of uses. It may be sown alone as a spring crop to provide early pasture. It may be sown with spring grain to provide fall pasture after the grain is cut. In this latter case it is better sown after the grain is up and the ground dragged immediately after sowing to cover the seed. As it is a common practice to drag or weed our grain crops after they are up, the sowing of rape at this time can be easily done. Rape may also be sown just before the last cultivation of corn to provide fall feed and increase the yield of feed per acre of ground, or rape may be sown with fall rye to provide fall pasture.



Rape Sown With Small Grain For Fall Pasture.

2 pounds of rape seed to every acre of ground. The cost of the seed is so little and so small an amount is required that there is really no expense connected with it compared to the value of feed that is secured. The amount of seed that is sown per acre varies from 2 to 6 pounds depending upon the way it is handled. When sown alone from 5 to 6 pounds are recommended. When sown with small grains 2 to 3 pounds.

Prices: Lb., postpaid 25 cents; by express or freight at purchasers expense, 5 lbs., 50 cents; 10 lbs. 90 cents; 25 lbs., \$2.00; 100 lbs. or over at \$7.00 per 100 pounds.

SORGHUM

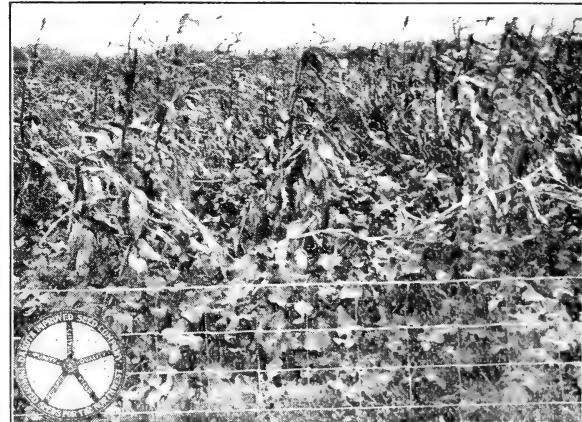
In many localities sorghum is taking the place of corn as a fodder crop. The reason for this is that it will stand more dry weather than corn. It also produces more weight of palatable fodder per acre. Many of the varieties offered are too late for the extreme north. South Dakota No. 341, however, is early enough for any of the northern states and will mature wherever Minnesota No. 13 corn will mature.

Where sorghum is grown to cut for hay it should be sown broadcast at the rate of about 30 or 40 pounds per acre. If it is to be cut with a corn binder it should be sown in drills 3 feet apart at the rate of 6 or 8 pounds per acre. We consider the latter method the better.

South Dakota No. 341. This variety originally came from Montana, but has been grown at the South Dakota Experiment Station ever since and has proved itself earlier than any other variety under trial. It is of the Early Amber Cane type, but is from a week to three weeks earlier than the other strains of Early Amber Cane that have been tried. It is with great difficulty that we have secured any seed of this sorghum and can offer it only at the following prices: Per pound by mail postpaid, 30 cents. By express or freight, per pound 20 cents; 5 pounds, 60 cents; 10 pounds 90 cents; 100 pounds \$7.00.

Early Amber Cane. This is the common type of Amber Cane grown throughout the northern states for fodder purposes. It produces an abundant crop of fodder of very fine quality. It can also be used for syrup and at several points in our northern states it is grown for this purpose. Per pound by mail postpaid, 25 cents. By express or freight, per pound 15 cents: 5 pounds 40 cents; 10 pounds 70 cents; 100 pounds \$4.00.

Kaffir Corn. This is one of the non-saccharine sorghums and is used as a fodder plant all through the Great Plains region. It makes a very strong growth and produces an abundant supply of excellent fodder either green or dry. It is highly relished by all kinds of stock. Sow at the rate of 15 to 50 pounds per acre in drills or broadcast. Per pound postpaid 20 cents. By express or freight, 10 pounds 60 cents; 50 pounds \$1.75; 100 pounds \$3.00.



Rape Sown in Corn at Last Cultivation.



GRASSES



LAWN GRASSES.

A good lawn is one of the most attractive features of the home. The first requisite of a good lawn is the right kind of seed. Aside from the importance of sowing good seed the most essential thing is to prepare the soil very thoroughly before the seed is sown.

The most desirable seed for a lawn anywhere in the western and central states is Kentucky Blue Grass. White Clover produces quicker results and is very desirable in a mixture with Kentucky Blue Grass. Aside from these two plants there are comparatively few kinds that are used for a lawn.

Before seeding the lawn, the ground should be well spaded or worked up in some manner to the very finest state of tilth. If in scraping or grading small areas of subsoil are uncovered, these should be removed for a few inches and black soil added. If this is not done the lawn will appear patchy and these spots will always be noticed. When the seed is sown, the soil should be well firmed and not allowed to remain loose. For lawn purposes a large amount of seed is sown. The quantity of seed is the smallest item and quicker results are obtained with a heavy seeding. From 40 to 100 pounds per acre is used.

We make up a mixture of the choicest varieties known. This mixture is adapted to a variety of conditions. If, however, you have unusual conditions we will make up a mixture for your special location, if you will give us a statement of such conditions. Price of our Northern Standard Lawn Grass mixture, per pound postpaid, 35 cents. By express or freight, 5 lbs., \$1.25; 10 lbs., \$2.40; 25 lbs., \$5.50.

KENTUCKY BLUE GRASS.

This will always be the standard lawn grass and is also valuable to use in pasture mixtures where there is a reasonable amount of moisture. We offer only the highest grade seed. Kentucky Blue Grass seed of uncertain quality can be bought at a much lower price than we offer it. We purchase the very choicest seed obtainable regardless of price. Prices per pound postpaid, 35 cents; by express or freight, 5 lbs., \$1.25; 10 lbs., \$2.40; 25 lbs., \$5.50; 100 lbs., or over at 21 cents per pound.

TIMOTHY.

This is still the leading grass. There is probably more acreage of timothy grown each year than any other one kind of grass in this section of the country. It is usually comparatively easy to procure a stand of timothy and it is always reasonable in price. Our seed is practically all South Dakota grown and we guarantee it for purity, quality and germination. We offer seeds in two grades as follows: First grade, per hundred pounds \$4.50; small amounts at 8 cents per pound; second grade, per hundred pounds \$4.00; small amounts at 7 cents per pound. Single pound postpaid 20 cents. Prices subject to change.

ENGLISH BLUE GRASS.

This grass has not been grown to a large extent by the farmers in the Dakotas, but is being introduced extensively in certain localities where its merits are becoming known. It is an excellent grass mixed with red clover or alsike and can be used in mixtures when timothy forms a part and can be cut about the same time. It is an excellent hay and pasture grass adapted to either dry or moist soil. It is not really a blue grass at all, but is one of the fescue grasses known as "Meadow-fescue." It does not spread like blue grass or brome grass. Sow from 8 to 12 pounds per acre when sown alone. In mixtures, use from 3 to 6 pounds. Price per pound postpaid 30 cents; by express or freight 20 pounds at 22 cents per pound; 100 pounds or more at 20 cent per pound. Prices subject to change.

BROME GRASS.

All farmers who have grown this grass have a great deal to say about it. Sometimes they say it is one way and sometimes the other. Anyone who has grown it either likes or dislikes it. We think that it has more of a place in the northern part of South Dakota and North Dakota than in the southern part, though there are advocates of *Bromus* almost everywhere you go. Sow from 15 to 20 pounds per acre and do not plow up at the end of the first year if you do not see the *Bromus* all over the ground. It makes very little growth the first season, but spreads very rapidly the second and any kind of a stand at all will cover the land in the third year. Price per pound postpaid, 25 cents; by express or freight, 20 pounds \$2.50; 100 pounds or more at 11 cents per pound. Prices subject to change.

QUALITY IN GRASS AND CLOVER SEED

It is an undeniable fact that most farmers purchase their grass and clover seeds with their eyes shut. I don't mean exactly this, but it amounts to the same thing. When one buys wheat, oats and barley, it is a comparatively easy matter to determine impurities and it is a comparatively simple matter to make a germination test to find out what percent will grow. In grass and clover seeds the situation is different, particularly with grass seed. The buyer, nine cases out of ten has to take the seedsman's word for the quality of the seed that he is buying. It takes an expert to determine difference in quality in many of our kinds of grass seed by examination and even then he cannot by a mere examination tell the percentage that will grow. We do not know of any way that we can impress this matter upon the buyer better than to request him to purchase the seeds that he is to use early in the season, a month or two at least before he intends to sow them and then send a sample to the U. S. Department of Agriculture Seed Testing Laboratory for examination. The central seed testing laboratory is at Washington, D. C., but in order to make it possible for western farmers to secure tests in a short time, the Department of Agriculture has established a seed testing laboratory in connection with the Agricultural Experiment Station at Lincoln, Neb. This laboratory will test without charge samples of seeds sent to them for examination. The larger the sample sent the more accurate the test. It should be wrapped securely in a strong envelope and mailed to **Branch Seed Laboratory, Agricultural Experiment Station, Lincoln, Nebr.** The sender's name and address should be on the outside of every package and a letter should be written stating whether purity or germination tests are desired, or both.

It has been said that our prices for grass seed are away out of reach. This has been especially mentioned with reference to our prices on Kentucky Blue Grass. We must admit that there are other seedsmen making exactly the same claims for their blue grass that we do, who are offering their seed for several cents per pound below our prices. We must say that seed of the quality that we are offering cannot be purchased and sold at a lower price. Anyone pretending to offer the same grade of seed at a lower price must necessarily send you a lower quality of seed. Let us apply a little mathematics to this subject.

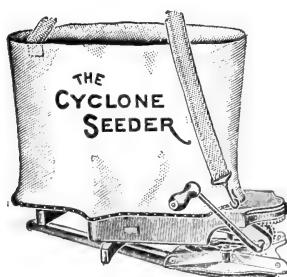
We have a large stock of Kentucky Blue grass on hand at the present time which tests 91% pure and shows a germination test of 83%. Now what does this mean. It means that 91% of seed you buy is Kentucky Blue grass and that 83% of this 91% will grow. By computation we find then that just about 75% of the total weight is germinating seed. For Kentucky Blue grass this is a very good test both as to purity and germination. Another sample which we have in hand but which we did not purchase and which looks so near like the sample we have in stock that it would take an expert to tell any difference, gives the following result in test. The purity examination showed that only 65% of the seed was Kentucky Blue Grass seed, the germination test showed that 58% of the Kentucky Blue grass seed that was present would grow. By computation we find then that 37 or 38% of the entire stock was good seed. What does this mean? This means that assuming that the impurities in either stock were harmless, which in the latter case would probably not be true, but assuming this to be true, one could afford to pay for the latter stock just half what he could afford to pay for the former. That is if the former was offered at 30 cents per pound, the latter would be worth about 15 cents. The actual difference in price of these stocks at the time they were offered to us was only two or three cents. A large number of samples that we examined at the same time were very much poorer than the one we have used for comparison but these samples happened to be such that no farmer could tell the difference unless he was an expert.

We do not know what more we can do to call the attention of buyers to quality in grass seed. We offer only the best grade and get our stocks from dependable sources and yet we have a large number of farmers who write us every year saying that our prices are too high and they will buy seed elsewhere at two or three cents per pound below our prices. You may have no more reason to believe us than to believe the others so we will simply call attention to the government seed testing laboratory so that you can find out for yourself. We wish every farmer who buys seed from us would submit samples to this laboratory for test. Our prices may be high, but if our seeds are not worth it we want you to know it.

With regard to clover seed, we wish to handle home grown seed. Therefore, we have to buy our clover seed from our home growers. Many of these use their fanning mills and clean up their seed to the point where they think it is perfectly clean seed. We take this same seed and we invariably have to clean out from 10 to 15% of seed to bring it up to the standard that we set for the seed we sell. When we offer this seed after it has been fully recleaned with our special machinery we find that the farmer does not wish to pay any more for this specially recleaned seed than we paid in the first place for the seed when we bought it. It must be understood that there is really only one kind of clean seed, but that the term "clean" as it is applied by farmers in general means simply that the seed has been run through a fanning mill, but it may still have from 5 to 20% of impurities or light weight seed still in the stock.

BROADCAST GRASS SEEDER

The **IMPROVED CYCLONE SEEDER** has stood every test of more than forty (40) years of exacting service. It will sow all varieties of Farm Seed that can be sown broadcast and with ease to the operator. Five acres **per hour** is a fair average for the **CYCLONE**. The seed is distributed evenly and with great saving of time which makes this a very practical machine on any size farm. It increases profits both ways—in better crops raised and in time and seed saved. **It will pay for itself in sowing one bushel of clover seed.** It is a convenient, practical and durable machine. Price \$1.50





ALFALFA



THE KING OF FORAGE PLANTS.

To much can hardly be said of this plant. When raised for hay and sold on the market the returns are not usually so large because of the fact that very few buyers appreciate the value of alfalfa hay as compared to other hay. In the Plains region where the problem of obtaining a large amount of food per acre for stock is an important one we may say that this plant has practically solved the question. It produces from 2 to 6 tons of hay per acre in from 2 to 4 cuttings. We cannot say of any other crop that pays as this does even under the most unfavorable conditions. This being true, one may readily see what the returns would be in favorable years and in favorable localities.



Ideal Method of Curing Alfalfa.

seasons in which everything else would be killed out and produce returns to pay for the labor that season and come up next season with just as fine a stand as ever. At Highmore Experiment Station in South Dakota there is a plot of alfalfa that was sown in 1899 and which has gone through some of the driest and most severe seasons the country has known. This field still stands and produces from 2 to 3 good crops of hay every year.

MONTANA ALFALFA.

Montana produces excellent alfalfa seed. Wherever comparisons have been made in the northern states between Montana alfalfa and alfalfa of the ordinary commercial stocks the Montana alfalfa has given the better returns. We have an extra choice stock of Montana seed which we offer as follows: Per pound by mail post-paid, 40 cents; by express or freight per bushel of 60 pounds, \$14.00; 100 pounds \$22.50. Prices subject to change.

SOUTH DAKOTA ALFALFA.

Alfalfa seed grown in South Dakota is as good as any commercial seed that can be obtained. Most of it is fully equal to Montana seed and some of it is better. Very little Montana or South Dakota alfalfa seed presents the fine appearance of the Southern seed but seed from either of the northern sources is far better for northern planting. Best grade of South Dakota seed per bushel \$14.00; 100 pounds \$22.50. Prices subject to change.

TURKESTAN ALFALFA.

A great deal of alfalfa seed is imported every year. Some of this comes from France, some from Turkestan and some from other regions. The Turkestan seed has been recommended very highly for sowing in the West. There is however a great difference in the value of Turkestan seed that comes from different parts of Turkestan. The real value of any stock of Turkestan seed for planting must be determined by a test of that particular stock for a period of years in this country. This has been done so far to only a limited extent. S. D. Nos. 164 and 240 are Turkestan stocks that have been tested and which have "made good" in the Northwest among scores of others that have been discarded. For these reasons we do not offer imported Turkestan seed.

Farmers of the central west are coming more and more to appreciate this crop and are planting more of it. The conditions in most of North and South Dakota are excellent for alfalfa. In the eastern states it is often crowded out by Kentucky Blue Grass and other grasses, but under most Northwestern conditions it will hold its own with any other crop including the well known Russian Brome Grass, which is said to be able to drive out anything.

Alfalfa in Dry Farming. Alfalfa will stand more drouth, more hot winds and more unfavorable conditions in the Great Plains Region than any other plant. It will go through

PEDIGREE HARDY ALFALFA

Alfalfa is coming to be grown in nearly all parts of the Northwest as one of our important farm crops, but the question of hardiness has not been as fully considered as its importance warrants. In the most southern localities it has not been necessary to consider hardiness because the stocks were not killed out by winter-killing and good returns were received from most of the seed that was sown. In the north, however, the conditions are entirely different. We have regions where the thermometer goes very low and where there is a limited amount of snow fall to protect the fields during the winter. In such places it is necessary in order to secure the best results that hardy stocks be used.

The writer has been working since 1904 in the breeding of alfalfa for Dakota and northern conditions. Considering the length of time this work has been carried on the progress has been very marked. This work was carried on at the Brookings Experiment Station and at the Highmore Experiment Station from 1904 to 1906. During 1907, 1908 and 1909 it has been conducted on the farm of the Dakota Improved Seed Company at Mitchell. We now have a few hundred pounds of two or three of the leading pedigree stocks to offer in small quantities as long as they last.

SOUTH DAKOTA NUMBERS 164 AND 240.

According to the records of the South Dakota Experiment Station both of these numbers trace back to the same original importation which was brought over from the Providence of Tashkent, Siberia in 1898 by Prof. N. E. Hansen. The two numbers have been given because No. 164 was grown at Brookings and No. 240 at Highmore. The original importation was S. P. I. No. 991 of the U. S. Department of Agriculture. South Dakota No. 240 had been grown at the Highmore Experiment Station since its first importation in 1899 and has shown remarkable resistance to both drouth and cold. As a seed producer, however, it is not nearly equal to Numbers 162 and 167. Pound, 75 cents; 5 lbs., \$3.00, postpaid. By express or freight, 20 lbs., or over at 40 cents per lb.

SOUTH DAKOTA NO. 167.

This stock was sent to the South Dakota Experiment Station in 1904 by Mr. W. F. Kelley of Renner, S. D. Mr. Kelley reported it to be of unusual hardiness and forage value and said that he and Mr. Evans of that place had grown it about 8 years. In our tests at Brookings and Highmore this appeared very much like South Dakota No. 162, or the Grimm alfalfa though we cannot trace its history back to this source. In all our tests in South Dakota this No. 167 appears to be equal in hardiness to the Grimm. It starts as early in the spring and produces an equal amount of hay and seed. It is the most wonderful seed producer. At the Highmore Experiment Station where scores of stocks are being tested in square-rod and larger plots, the plots of South Dakota Numbers 162 and 167 stand out prominent above all others especially on the first crop of hay. On the second crop the difference is not so marked. These two varieties start earlier in the spring than any others and we can strongly recommend them so far as our experience goes throughout the entire northwest. Lb. 75 cents; 5 lbs., \$3.00, postpaid. By express or freight, 20 lbs., or over at 40 cents per lb.

IMPURITIES IN SEED.

Owing to the extremely wet seasons of 1908 and 1909 there has been great difficulty throughout many sections of South Dakota in the production of alfalfa seed that would be entirely free from green foxtail or pigeon grass and other weed seeds. In the plots of our pedigree hardy alfalfas, we have had this difficulty even to a greater extent than in the regular fields because we have grown our pedigree seed in rows under cultivation and it has been almost entirely impossible to eliminate all weeds. In a number of our pedigree stocks there is from 6 to 15 per cent of impurities that cannot be removed by cleaning. We have made careful examination and purity tests of all these stocks to determine whether any dangerous weed seeds were present, and we have also sent samples to the U. S. Government Seed Laboratory for examination so that we would be sure before offering this seed that nothing noxious was in any of our stocks. All of these tests show the principal impurity to be green foxtail or pigeon grass and they show that no dangerous weed seeds are present. In the light of this result we feel that we are perfectly safe in offering these seeds for sale to the public. In offering them, however, it must be understood that our prices are based upon the amount of good alfalfa seed that is present. We do not wish anyone to pay for weed seeds so we send an amount additional to make up for the impurities present. For example, if you should order 20 pounds of seed and our tests would show that there was 10% of impurities, you would receive a little better than 22 pounds in the filling of your order. We regret very much that this foreign seed is present, but we feel that there is nothing that will do any harm and that we are taking the right stand in offering the seed for sale. Probably nine-tenths of the alfalfa seed produced in South Dakota this year has a high percentage of impurities because of the conditions mentioned, but on pedigree stocks we know that the very choicest and purest seed is expected so we wish to adjust this matter so that every purchaser will be fully satisfied with what he receives.

GERMINATION TESTS.

The germination tests to date on our pedigree stocks are high and show a comparatively low percent of hard seeds. This is a point worth considering and we think no one will have any difficulty in securing excellent stands from our pedigree seed. In fact wherever we have sown Grimm alfalfa we have found that 15 pounds to the acre would produce a better stand than 20 pounds of almost any of the commercial stocks. Mr. Isaac Lincoln of Aberdeen, S. D. has 15 acres of Grimm alfalfa that is the finest looking field of alfalfa that we know of in the whole country. It does not appear to have 4 square inches of ground without its full number of alfalfa plants. Mr. Lincoln sowed 20 pounds to the acre and from the appearance of his field, he would have had a perfect stand with one-half that amount of seed, but Mr. Lincoln prepares his ground like a garden and this is the secret of his success in securing this remarkable result. If every farmer would start with from 5 to 10 acres of alfalfa as a trial and give the ground extra preparation instead of sowing 50 or 100 acres with ordinary treatment we would have more successes and fewer failures in the growing of alfalfa.

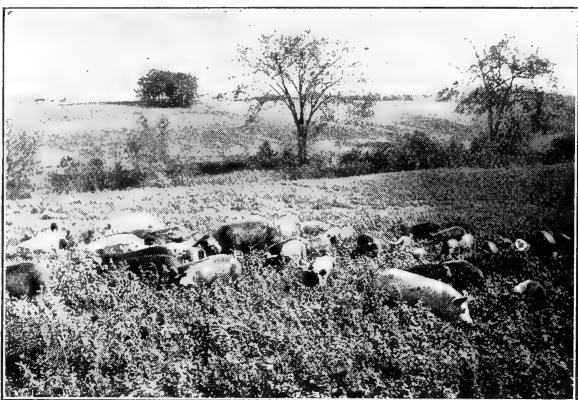


GRIMM ALFALFA

REPORTED BY THE U. S. DEPARTMENT OF AGRICULTURE AS "THE HARDEST VARIETY OF MEDICAGO SATIVA OF WHICH WE HAVE KNOWLEDGE."

The original Grimm alfalfa has been grown in Minnesota for 51 years since it was first introduced from Europe. It was brought over in 1857 by Wendelin Grimm from near Wertheim in the Grand Duchy of Baden, Germany. Since that time it has been grown in Minnesota near the Twin Cities and has also been introduced into several sections of the country by the U. S. Department of Agriculture. It has given returns all over the northern part of the United States and Canada ahead of any other variety. In hardness it seems to be without equal. We have seen plots of this in Saskatchewan, Canada, that were making good where all other varieties had practically killed out. It has also been grown in North Dakota, Minnesota, South Dakota and other states. It has made good wherever hardness was one of the requisites in the growing of this plant. In South Dakota it has been grown since 1902 under South Dakota No. 162. To our knowledge it has never killed out in South Dakota since its first introduction into the state and there have been one or two very severe winters in which nearly all other stocks of alfalfa winter-killed very badly.

It has been necessary to introduce this seed into South Dakota and Montana in order to secure sufficient seed to offer it in a commercial way. In these latter regions it produces seed abundantly and it will be a matter of only 8 or 10 years before this variety will be demanded to the exclusion of practically all others. We are now working on some selections from the Grimm alfalfa. We cannot as yet say whether they will be superior to the original stock or not. These have been increased from the best selected individual plants and the pedigree of each is known.



Perfectly Happy in 4th Crop of Grimm Alfalfa on the Farm of A. B. Lyman, Excelsior, Minn.

GOVERNMENT REPORT ON GRIMM ALFALFA.

Report of the Chief of the Bureau of Plant Industry for 1909, page 25.

"Grimm Alfalfa."—The investigations of this valuable alfalfa, planned in 1904 and begun during the following spring, have now progressed to a point where positive recommendations as to its use can be made. Experiments thus far conducted indicate that this is the hardest variety of *Medicago sativa* of which we have knowledge. In an experiment in co-operation with Prof. L. R. Waldron at the North Dakota subexperiment station, at Dickinson, 68 strains of alfalfa, including two Grimm alfalfas of slightly different heritage, were as nearly as possible subjected to identical conditions and treatment in hill and drill rows. This spring, after a winter of normal severity preceded by a moist autumn, the winterkilling in the 68 kinds was found to range from 3 per cent to 100 per cent. Seven-eighths of the varieties lost over half of their stand. Of the nine strains that lost less than half, only two lost less than 10 per cent. Both of these were Grimm alfalfa. Farmers of the Northwest are deeply interested in alfalfa, and especially in the Grimm strain. Efforts are being made to establish a Grimm alfalfa seed industry in order to safeguard farmers in making their purchases of seed."

As we have only a few pounds of Grimm alfalfa seed to offer and have gone to a great deal of work to secure it, we will be able to accept only a comparatively small number of orders at the following prices: Per oz., 15 cts.; $\frac{1}{2}$ lb., 60 cts.; per lb., \$1.00; 5 lbs. or more at 75 cents per pound, prepaid. By freight or express at purchasers expense, 20 lbs. or over at 60 cents per pound. Pedigreed selections from Grimm per pound postpaid, \$1.50.



CLOVERS



THE CHEAPEST SOIL FERTILIZER.

The clovers belong to the group of plants known as legumes which serve to increase the nitrogen in our soils. This is done by certain bacteria which grow and develop on the roots of the leguminous plants. Every rotation of crops on the farm should include clover or some other plant of this family. The eastern farmers have come

to realize this and consider clover absolutely necessary on their farms. The central states and west are gradually waking up to the fact that clover is just as desirable for them as for the eastern farmers. They may be able to get along without such crops for a while now when land is new, but they will need more later and the use of clover now will increase the yields of other crops to pay for all expense attached and some additional. In experiments conducted by the Minnesota Experiment Station at various points in the State of Minnesota it has been shown that the sowing of six pounds of clover seed on every acre of ground that was put into wheat increased the yield of wheat the next year on an average of over three bushels per acre. This is getting good pay for the clover seed even at the high prices that sometimes pre-



Growth of Red Clover First Year from Seed After Crop of Barley Had Been Harvested.

vail and shows that it pays even though the land is not left into clover for two or more seasons. We would advise that a certain portion of every farm be kept in clover but if this can not be done, wherever small grain is sown the practice mentioned above of sowing clover seed with the grain and allowing the clover to grow after the grain is harvested to plow under for the next crop is far better than sowing the grain alone.

The writer has tested over fifty stocks of red clover seed in South Dakota and has found that seed from northern sources has proved in all cases to be the most desirable for the northern states. In fact, no southern grown stocks tried were nearly as good as the northern grown seed. This point is of vital importance to clover growers in the Northwest. One can better afford to pay double the price for seed than to buy southern seed. In most cases western grown seed has proved better than eastern grown, though this is not always the case.

Medium Red Clover. This is the common red clover. We offer northern grown seed of the best quality at the present time at \$12.00 per bushel or \$19.50 per hundred pounds. Prices are subject to change. We will be pleased to submit samples and quote latest prices at any time.

Mammoth Red Clover. Ten days or two weeks later than the Medium clover and not so commonly grown. We cannot always furnish South Dakota grown seed of this clover, but will offer the best seed obtainable at prices governed by the condition of the market.

White or Dutch Clover. Used in lawns and pastures. Per pound postpaid, 35 cents; by express or freight, pound 27 cents; peck of 15 lbs., \$3.50. Prices on larger quantities on application.

**SPECIAL COLLECTION OF VEGETABLES FOR THE KITCHEN GARDEN
DESCRIBED ON PAGE 64.**



MAMMOTH LONG RED MANGELS.

FIELD ROOT CROPS

The American people pay altogether too little attention to the growing of root crops for their stock. Roots occupy a position in both crop rotation and feeding rations that cannot be taken up by any other crops.

MANGEL-WURZEL.

Golden Tankard. Yellow in color; flesh is solid and firm. Extremely productive and valued highly by all dairymen and other feeders as a field root crop.

Mammoth Long Red. Roots are very large; deep red in color; very productive and very popular. This has given remarkable yields in South Dakota.

Giant Yellow Intermediate. A variety intermediate between the long and the globe shaped varieties. Flesh white, firm and solid.

Any variety by mail postpaid; oz. 5 cts.; lb. 40 cts. By express or freight: Lb., 32 cts.; five pounds \$1.25.

SUGAR BEETS.

Klein Wanzleben. This variety is perhaps more extensively grown than any other. It is well adapted for growing in the Northwest.

Vilmorin's Improved. This variety has been developed through continued selection made by the famous seedsmen of France, and represents the best that can be obtained in sugar beet varieties at the present time.

Either variety by mail postpaid: oz. 5 cts.; lb., 40 cts.; by express or freight, lb., 32 cts.; 5 lbs., \$1.25.

CARROT.

Mastodon: This is the heaviest yielding carrot grown, yielding a greater weight of roots per acre than any other sort. The flesh is white solid and sweet. It is a vast improvement over the older white and green Belgian sorts which are usually grown. The roots are short making them easy to harvest.

Victoria. A very large fine stock carrot. This is the best and heaviest yielding yellow carrot that we know of. It appears to be a heavy cropper on all kinds of soil but is especially adapted to rich, strong land.

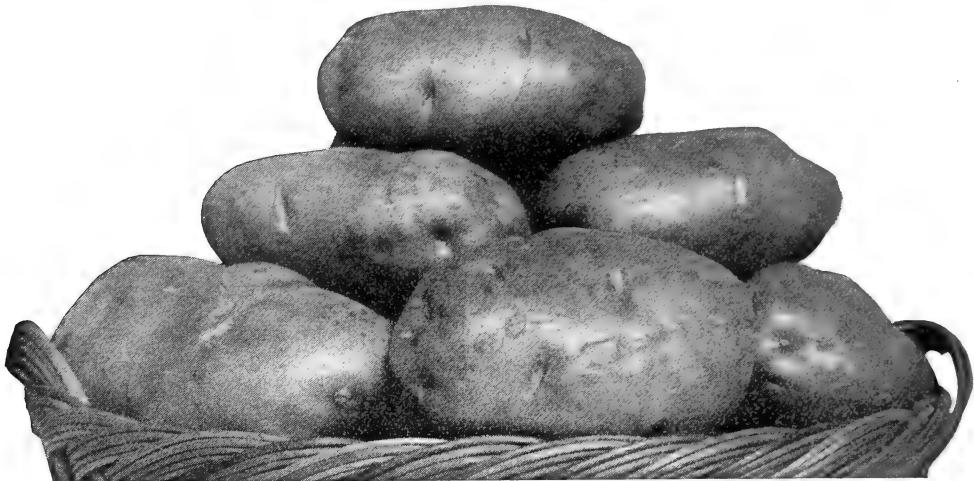
Either variety: oz. 10 cts.; $\frac{1}{4}$ lb., 30 cts.; lb., 90 cts., postpaid. By express or freight: lb. 80 cts.; 5 lbs., \$3.50.

RUTABAGA.

Monarch. The best and highest yielding rutabaga grown. It usually yields from two to 5 tons more to the acre than any other variety. We can recommend it very highly to all stockmen.

Purple Top. This does not give the immense yield per acre that is produced by the Monarch rutabaga, but besides being used for stock feeding it is suitable for table use as well. Roots grow to a large size, and are of fine quality.

Either variety: Oz., 10 cts.; $\frac{1}{4}$ lb., 20 cts.; lb. 50 cts., postpaid. By express or freight: Lb., 40 cts.; 5 lbs., \$1.75.



IMPROVED ROSE NO. 4 POTATOES.



POTATOES



The growing of potatoes in the northwest has received a great boom the last two years because of the unusually high price that has been offered for good market tubers. The yields have in general been very good. However, the past season good potatoes in South Dakota were very scarce and high in price. The potatoes that we offer for seed this year are not as large in size as we have seen potatoes heretofore, but they are clean, well matured, of fair size and will make very good seed for planting. Last year on one or two varieties there was a complaint that our tubers were really too large and on this account did not go far enough in planting. We acknowledge this criticism. Medium sized potatoes are as good and go a great deal farther when it comes to planting. The past season the best variety in our home fields was the Vermont Gold Coin. In fact this has been at or near the top of the list every year that it has been grown. The 'Improved' Rose No. 4 usually yields about the same as the Vermont Gold Coin, but this year the conditions were not favorable for it. The California Russet and Early Ohio have yielded about the same. The past season the Early Dakota outyielded the Ohio and was about a week earlier. We offered this variety for trial last season and can say now that we consider it as an early potato fully as good as Early Ohio.

Shipping Potatoes. On all orders for potatoes of one bushel or over unless otherwise instructed, the potatoes will be shipped in baskets, one bushel to a basket. It takes a $1\frac{1}{2}$ bushel basket to hold one bushel of potato tubers. Baskets are much more expensive than sacks, but will carry the potatoes in much better shape. If the customer wishes us to use sacks in place of baskets, he may deduct 20 cents per bushel from the prices quoted here.

As to the time of shipping, we will exercise our own judgment as to when it is safe to ship unless we receive definite instructions from the purchaser. In such cases the purchaser assumes the entire responsibility as to freezing on the road.

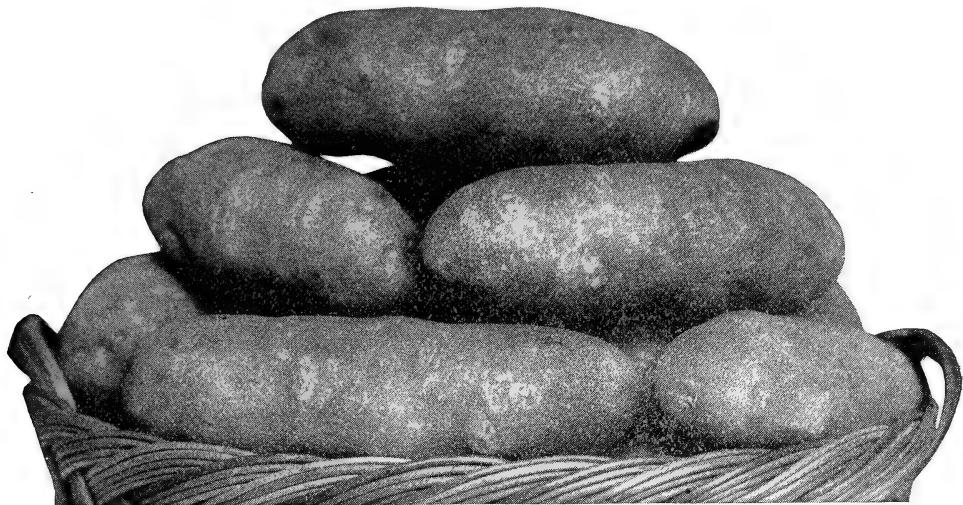
Prices. It may appear that our prices on potatoes are high, but we shall try to have our potatoes very thoroughly handpicked so that only the right kind of tubers are sent for planting. All reports that we received of those sent out by us last year appear to be satisfactory, that is, considering the conditions under which the potato crop was grown last season.

VERMONT GOLD COIN.

A comparatively new main crop variety introduced by Burpee in 1903. It has shown a very high productiveness combined with excellent quality. The tubers are light colored, long, oval in shape, uniformly large sized and lie closely together in the hill. The flesh is very white, fine-grained, cooks up mealy and very dry. As a vigorous plant it is without a superior. Its spreading, healthy foliage entirely covers the ground during the season. We recommend this as one of the best new main crop varieties either for home use or for market. A portion of our field of Vermont Gold Coin had not been dug at the time of the freeze on October 12th. This variety suffered more than any other variety that we grew because the potatoes were so large and the yield so heavy that they were almost forced out of the ground where the frost was able to reach them better than it was with the other varieties. This potato is becoming more popular with us every year that we grow it for it has never failed to produce a good yield of first quality tubers.

CALIFORNIA RUSSET.

A new variety of great merit. In quality this potato cannot be excelled. The tubers are of medium size, long, oval in shape and have a beautiful russet skin which is much admired by everyone who sees it. Cooks easily, and when cooked is white and mealy. The



CALIFORNIA RUSSET POTATOES.

eyes are perfectly level with the surface of the tuber and there is none of the unsightly knobs which are so common on some of our varieties. The firm, beautiful skin and starchy texture make it highly attractive and delicious when baked. Besides being excellent in quality it is a good yielder and remarkably scab resistant. Professor Samuel B. Green, Professor of Horticulture of the University of Minnesota, says of this potato: "This variety is one of the most satisfactory we have grown and is a good mid-season and late potato of fine quality. The vines are more immune from disease than any of the standard varieties and when well known this variety will be a popular sort for planting." We do not hesitate in the least to recommend this potato to the most critical as a main crop variety. It is without a peer in quality, and at the same time is a good yielder. The photograph shows a sample of the tubers grown on our farm. When on exhibit at the State Fair and Corn Palace it has been admired by everyone for its fine form and beautiful russet skin.

IMPROVED ROSE NO. 4.

One of the best varieties we have grown. Highest in yield, best in quality and most resistant to disease. We know of no better general crop potato. This is one of the varieties that is grown so largely in the extreme South for very early northern shipment. It appears in our northern markets during April and May. In our trial grounds it has proved to be one of the most valuable general crop varieties tested. It is a remarkably heavy yielder. The plant is a vigorous grower, producing large vines with an abundance of strong, healthy foliage. Considered by other growers and has proved to be with us, very scab-resistant. The tubers are large, oval in outline and flattened; skin smooth and pink in color; eyes few and shallow. When cooked this potato is very mealy and of fine flavor. We recommend this as a medium season, high yielding potato of good quality for either home use or for market.

EARLY OHIO.

The standard early potato, appears to do better under favorable conditions than many of the other varieties. Can be depended upon to produce potatoes in almost any locality and under almost any conditions. The greatest trouble with the Early Ohio has been its liability to scab. On this account it is very important that all seed tubers be thoroughly treated before planting. We have a very nice stock of this variety to offer.

EARLY DAKOTA.

We put out this new potato last year for trial. It has made good in our own fields and wherever it has been tried. With us it was about a week earlier than the Early Ohio and yielded 50% more than the Ohio. We consider it the best early potato that we have grown.

PRICES ON POTATOES

Any variety per peck 60 cents; $\frac{1}{2}$ bu., \$1.00; bu., \$1.75; 5 bushels or over at \$1.65 per bushel.

POTATO EYES.

A great many farmers and gardeners in the northwest wish to try different varieties of potatoes in the attempt to get something better for their conditions than what they already have. There is a great deal of difficulty in shipping potato tubers a long distance and the freight amounts to quite an item. To meet the demands under these conditions we will put up potato eyes in boxes to go by mail. We do not especially recommend this method where one can easily secure whole tubers for planting, but it is particularly suitable for long distance shipments. We will put up 25 potato eyes of one variety in each small box. 4 small boxes make a large box containing 100 eyes. We can make this up all of one variety or of two, three or four varieties just as the buyer may wish. We will ship one of these large boxes containing 100 eyes to any person postpaid for \$1.00. We will plan to ship these about the time we think they should be planted unless we are otherwise instructed. We prefer to have the buyer let us know when he wishes the potato eyes shipped, then there will be no misunderstanding.

SPRAYING POTATOES

Until recently comparatively little spraying of potatoes was done in the Northwest. Our soil was new and it was possible to grow good crops of potatoes year after year by changing locations for growing them. In recent years there have been large losses of potato crops due to blight or the ravages of the potato beetle. The first year that blight was known to do any extensive injury in South Dakota was 1905 when it spread over the whole eastern portion of the state. Since then it has been more or less prevalent and all growers are coming to realize that it pays to spray their potatos with Bordeaux mixture as a preventive of this disease. As this can be done at the same time that spraying is done for the beetles it necessitates but very little extra work. The Bordeaux mixture can be made up and the Paris Green or other arsenical poison mixed with this in the same proportions as it would be mixed with water.

The Potato Beetle did very serious damage in South Dakota the past season. Early and continuous applications of poisons were necessary to eradicate them. Those who delayed in this until the beetles had arrived lost a large part of their crop before remedies could be secured and applied.

The best plan in the growing of potatoes is to be ready for either blight or "bugs." We have had many inquiries in the past for potato sprayers. All that we were familiar with that would do the work satisfactorily on a large scale were too expensive. This year we have made special arrangements with the Deming Company for a combination sprayer at a price within the reach of every potato grower. We are able to offer this 4-row wagon sprayer with pump for the remarkably low price of \$22.00. The regular list price is \$26.00. If one wishes extra hose and pole-holders so that the same pump can be used in orchard and garden as well as for whitewashing an extra cost of \$2.25 is all that is necessary. Thus for only \$24.25 a very complete spraying equipment for all ordinary farm and garden purposes can be secured.

For gardens or other small areas we can recommend the Brandt Sprayers. They do not take the place of the larger Deming sprayers which we are offering but are very serviceable for small patches of potatoes, for small fruits or for cabbages, melon vines, etc.

We will attempt to carry in stock all the sprayers listed on these two pages and will be pleased to receive the orders of our seed customers for any of them. All prices are F. O. B., Mitchell, S. D.

New "Brandt" Compressed Air Sprayer

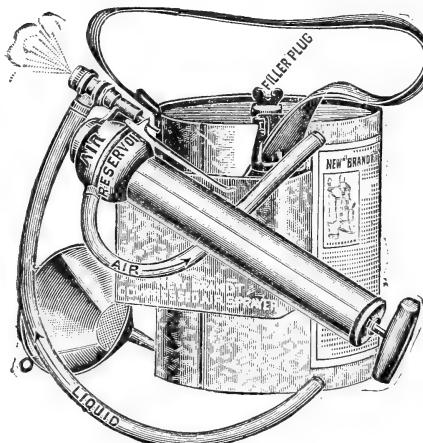


FIG. 2.

of vines can be covered with the same effort on the part of the operator.

The No. 3 Sprayer is the same as the No. 2 except that it is made entirely of brass which is necessary where sulphate or iron, sulphate of copper, and strong solutions of corrosive mixtures are used.

PRICES.

No. 2 Sprayer, Single Nozzle	\$5.00
No. 2 Sprayer, Single & Double Nozzle..	6.50
No. 3 Sprayer, Single Nozzle	6.75
No. 3 Sprayer, Single & Double Nozzle..	8.25
"Easy" Sprayer, Galvanized	2.25
"Easy" Sprayer, Brass	3.25
Tree Nozzle	1.50
No. 4 Bordeaux Nozzle .....	.75

The Easy Sprayer has all features of the No. 2 and 3 Sprayers. Is made of Galvanized Iron or Brass. Holds one gallon. Is equipped with automatic shutoff nozzle and is found a very satisfactory Sprayer where gardens and lawns are not too large.



THE "EASY"

SPRAYED Potatoes are Free from Bugs and Blight



FIG. 653—Showing method by which Barrel Pump is attached to Potato Sprayer. This Potato or Field Sprayer will pass through an ordinary gate. Can be raised or lowered, and any or all nozzles closed or opened as desired.

TO be thoroughly effective, the poison must be DRIVEN into the plant. The four nozzles on the Field Sprayer (see illustration at top of page) will spread the spray at a constant pressure of 70 lbs. when the "Simplex" Barrel Pump (see illustration at side) is used.

DEMING SPRAYERS

are noted for their reliable work under all conditions. Made in 24 different styles. Complete Catalogue on application.

PRICES:

	List Price	Our Special Price
FIG. 653 Field Sprayer, without barrel pump but including 7 feet of hose and otherwise all ready to attach to ANY barrel sprayer-----	\$17.00	\$13.50
FIG. 550 "Simplex" Barrel Pump, without hose but with Y connection, OUTFIT "A" includes pump and one 12½ feet section ½ inch hose, Demorel nozzle and pole holders-----	9.00	8.50
OUTFIT "B" includes pump and TWO sections of ½ inch hose, two Demorel nozzles with necessary pole holders-----	13.50	10.75
	18.00	13.75

As the "Simplex" Pump (Fig. 550) can be used for orchard spraying, whitewashing, etc., it is very desirable to purchase one or two leads of hose for that work, as included in outfits "A" or "B," in addition to that required for potato spraying.

Fig. 653, Field Sprayer and Fig. 550, "Simplex" Pump, used in combination, make up a complete (except barrel) and serviceable spraying outfit for large fields of potatoes, and takes the place of a more expensive outfit. Our SPECIAL PRICE, complete, is only, \$22.00



FIG. 550

"Simplex" Barrel Spray Pump. Has large air chamber. All working parts of brass. Mechanical agitator.

FOR SALE BY

DAKOTA IMPROVED SEED COMPANY

MITCHELL, SOUTH DAKOTA

"The DEMING CO.

We have never had occasion to find fault with your spraying apparatus that is in use at this Station. It has always done the work in a very satisfactory manner.

C. B. WALDRON,
Entomologist,

North Dakota Agricultural
College."

“Planet Jr.” FARM and GARDEN TOOLS



Space will not permit us to illustrate ALL of the “Planet Jr.” Tools, but we will gladly send a 56-page catalogue, FREE, on application.



“PLANET JR.” NO. 4 COMBINED SEED DRILL, SINGLE WHEEL HOE, CULTIVATOR AND PLOW.

Price \$10.50
as a Seeder
only \$8.50.



This admirable tool combines in a single convenient implement a capital hill-dropping seeder, a perfect drill seeder, a single wheel hoe, a cultivator, and a plow. It holds two quarts and as a seeder sows in continuous rows or drops in hills at five different distances. It is thrown out of gear by simply raising the handles. The index is accurate, simple and easily set. The drill is detached and the tool frame substituted by removing but one bolt. It then becomes a single wheel hoe, garden-plow or cultivator. It is useful almost every day of the season, at every stage of garden work. With this one implement the small farmer can do practically all the work in his small crops.

“PLANET JR.” NO. 25 COMBINED HILL AND DRILL SEEDER, DOUBLE WHEEL HOE, CULTIVATOR AND PLOW.

This combined machine is intended for a class of gardeners who have a large enough acreage in crops for a Double Wheel Hoe to be used to good advantage, and yet prefer not to buy a separate wheel hoe. It is large enough for field use, for it holds $2\frac{1}{2}$ quarts.

As a drill it is almost identical with the No. 4 Drill; will sow in drills or hills, 4, 6, 8, 12 or 24 inches apart and has the same automatic device for throwing out of gear and the new combined cut-off and seed index with thumb screw adjustment. It is thoroughly substantial and accurate in sowing all kinds of garden seed in either hills or drills.

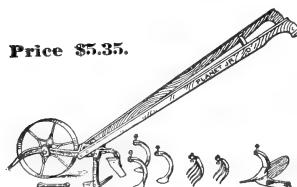
As a Wheel Hoe it is identical with the No. 12 Double Wheel Hoe, the best machine on the market. The change from drill to wheel hoe takes but a moment, and the entire combination is one we can recommend and guarantee satisfactory.



Price \$13.00.

“PLANET JR.” NO. 16 SINGLE WHEEL HOE, CULTIVATOR, RAKE AND PLOW.

Price \$5.35.



This single wheel hoe has a very full set of tools, several of them being of new design, such as have been found to work in the very best manner. It has 11-inch wheel, with broad face; is very light, strong and easy running. It has adjustable handles and quick-change frame. The tools are a well-shaped plow for marking out, plowing, covering, and late cultivation; a pair of 6-inch shield hoes and three all steel patent cultivator teeth; also a set of two rakes, just the thing for preparing ground for the seed drill. A practical leaf-guard holds up the plants, while thorough work is being done underneath; the frame changes in height and the wheel may be attached to the other side of the frame, when both sides of the row may be hoed at one passage.

“PLANET JR.” NO. 12 DOUBLE WHEEL HOE, CULTIVATOR AND PLOW.

This perfected wheel hoe is invaluable for use in all small crops. Its variety of work is almost incredible. Changes and adjustments of the tools are made with the greatest quickness. It has 11-inch wheels, which can be set at four different distances apart; the frame is malleable, with ample room for tool adjustment and can be set three different heights. The handles are adjustable at any height, and, being attached to the arch, are undisturbed in making changes of adjustment in frame, wheels or tools. The arch is of stiff steel, unusually high; the quick change frame permits the tools to be changed without removing the nuts. All the blades are of tempered and polished steel.

The tools shown and sold with No. 12 are what gardeners use most, and others can be added as wanted.



Price \$7.00.

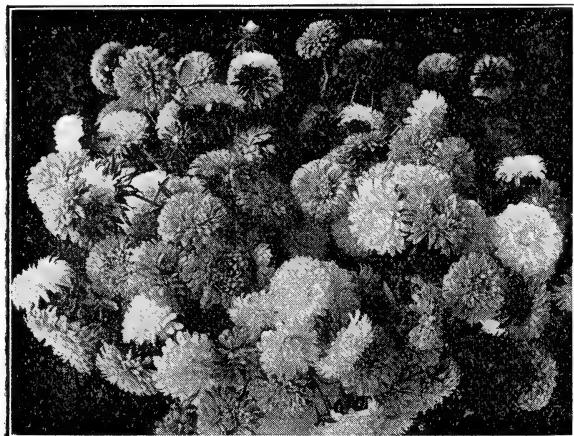
ALL PRICES QUOTED ON THIS PAGE ARE F. O. B. MITCHELL, S. D. OR
MINNEAPOLIS, MINN.



FLOWERS



One of the most cherished recollections that we have of our mother's or grandmother's home is that of the beautiful array of brilliantly colored flowers—marigolds, daisies, pansies, balsams, asters, pinks, poppies, nasturtiums, and other flowers in great array. No harm was done if a few flowers were plucked for a table bouquet. There were always plenty left. Instead of being confined to a few small beds on the lawn they were planted in the open garden with the vegetables and served to add color and life to the whole place. This is as it should be. If you have not room for flowers anywhere else plant them among your peas, beans and sweet corn. They will have more room to grow and will do far better than they will in the cramped space by the front doorstep usually given to the flowers.



ASTERS.

ASTERS. Beautiful for bedding or for cut flowers. Of very easy culture. Sow seeds in hot beds or out of doors and transplant when large enough. **Finest tall mixed**, 10 cents. **Finest dwarf mixed**, 10 cents. **Queen of the Market**, 5 cents.

BALSAMS. Will grow and bloom under almost any conditions. Never absent from our grandmother's garden. **Double Camellia-flowered**, 5 cents.

CANDYTUFT. A beautiful annual breeding and border plant. Sow in open ground. **All colors mixed**, 5 cents.

CARNATION, DWARF MARGURITE. Blooms in a few months from sowing the seed. Transplant into beds or borders. 10 cents.

CELOSIA OR COCKSCOMB. An old-fashioned flower. **Tall Mixed**. 5 cents.

CENTAUREA OR BACHELOR'S BUTTON. Very well known. Excellent for cut-flowers. **Best mixed**, 5 cents. **Sweet Sultan (C. imperialis)**. One of



SHASTA DAISY.

the best and most easily grown flowers for the garden. Makes beautiful bouquets for the table. Finest colors mixed, 10 cents.

CHRYSANTHEMUM. Paris Daisy. Blooms the first summer from seed. Fine for cut flowers. 5 cents.

CYPRESS VINE. A fine but not a rank climber. Flowers red and white. Leaves finely cut. 5 cents.

DAISY. Shasta Daisy, one of the finest new perennials for herbaceous borders and also for cut flowers. Hardy anywhere in this latitude with very slight protection. Produces strong plants first year from seed. 10 cents.

DIANTHUS PINKS. Presents one of the richest arrays of colors of any garden plant. Choicest single mixed, 5 cents. Choicest double mixed, 5 cents. Single fringed, 5 cents.

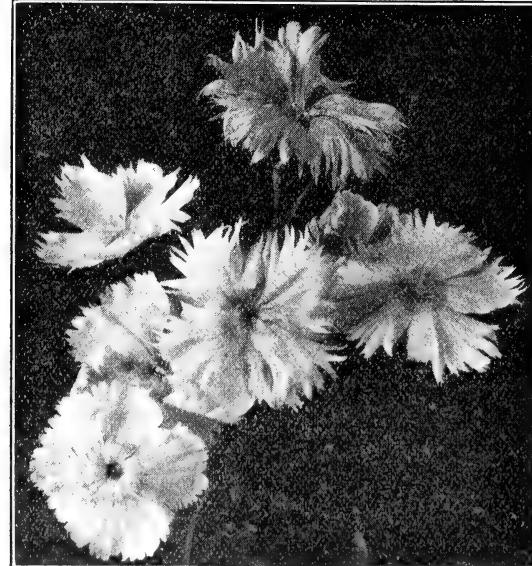
ESCHSCHOLTZIA OR CALIFORNIA POPPY. Will grow and bloom under all conditions. A very good bedding plant. **Golden West**, very fine, 10 cents. **Mixed**, 5 cents.

FOUR O'CLOCK. An old-fashioned but very popular bedding plant. 5 cents.

FOXGLOVE. Particularly desirable for borders and among shrubbery. Blooms the second season. **Monstrosa**, very large and fine, 10 cents. **Gloxinia-flowered**, 5 cents.

GOURDS. Rank-growing ornamental climbers. **Mixed**, 5 cents.

HOLLYHOCK. When grown in right place there is no plant that can add more to the ap-



SINGLE PINKS.



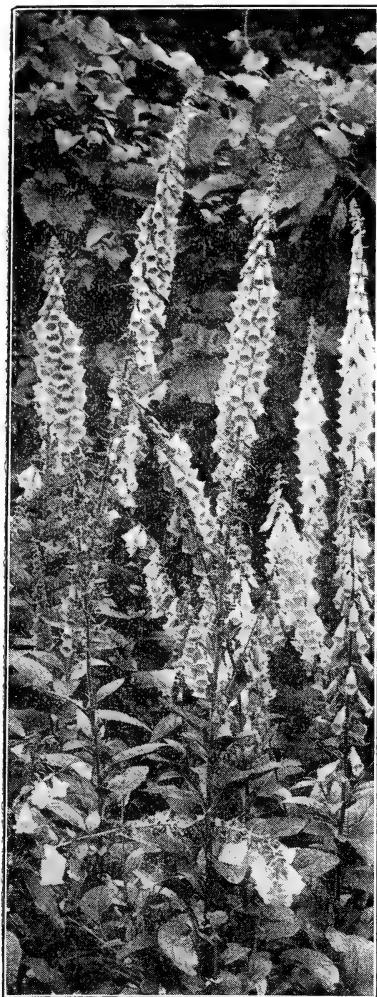
HOLLYHOCKS.

pearance of a yard. Finest single, 5 cents. Finest double, 10 cents.

LARKSPUR. Suitable for borders and for cut flowers. **Double Dwarf Rocket**, 5 cents. **Double Tall Rocket**, 5 cents.

MIGNONETTE. One of the most fragrant of garden flowers. **Golden Machett**, very fine, 10 cents. **Goliath**, enormous spikes of flowers, 10 cents. **Giant Pyramidal**, a very good strain, 5 cents.

MORNING GLORY. Popular strong



FOXGLOVE.

SUNFLOWER. Very desirable for fence-rows, hedges, or borders. **Miniature Sunflower** 3 feet tall, produces an abundance of single flowers, 10 cents. **Double Chrysanthemum-flowered**, 5 cents.

SWEET ALYSSUM. Easily grown and fine for edgings, 5 cents. **Little Gem**, very dwarf and extra fine, 10 cents.

VERBENA. A beautiful spreading plant for bedding or cut flowers. Our seed is the very choicest obtainable. **Mammoth white**, 5 cents. **Mammoth pink**, 5 cents. **Mammoth mixed**, all colors, 5 cents.

ZINNIAS. A showy bedding plant. Very desirable with shrubbery or in borders. Easily grown. **Finest double mixed**, 5 cents. **Double dwarf mixed**, 5 cents.

growing climbers. **All colors mixed**, 5 cents. **Imperial Japanese**. Flowers of extraordinary beauty, 10 cents.

NASTURTIUMS. No other annual will produce such a lavish profusion of flowers for so long a time with so little attention. **Finest dwarf mixed**, pkt., 5 cents; oz., 10 cents. **Tall mixed**, pkt., 5 cents, oz., 10 cents.

PANSIES. When sown in summer or fall and protected during winter produces the most beautiful array of flowers in early spring. The largest flowers are produced in cool weather. **Imperial German mixed**, 5 cents. **Premium mixture of finest sorts**, 10 cents. **Separate colors**, white, yellow, blue, black or red; 5 cents each.

PETUNIA. Once started grow like weeds from early summer until frost. **Finest mixed**, 5 cents. **Giants of California**, flowers extremely large and deep throated, very fine, 10 cents.

PHLOX. One of the best bedding plants. A great variety of colors. **Large-flowered mixture**, 5 cents. **Dwarf**, 6 to 8 inches high, for edgings, 5 cents.

POPPY. Flowers brilliant and showy. Very easily grown by sowing seed in the open ground. A striking display can be had with little work. **Special single mixed**, 5 cents. **Special double mixed**, 5 cents. **Dwarf Shirley**, delicate shades, 5 cents. **Mixture of all kinds**, 5 cents.

PORTULACA OR ROSE MOSS. Grows well under most conditions but like its cousin the Purslane does best in warm weather. Used for edgings. **Single mixed**, 5 cents. **Double mixed**, produces a good proportion of double flowers, 10 cents.

RICINUS OR CASTOR OIL BEAN. A large and beautiful tropical plant. Makes a fine showing among shrubbery or in clumps. **Mixed**, 5 cents. **Zanzibarensis**, the largest and most magnificent variety, 10 cents.

SNAP-DRAGON. An old favorite. **Special mixed**, 5 cents.



PANSIES.



GLADIOLUS

Up to this time we have never offered the gladiolus among our flowers, but the demand for this flower is so great that we feel it necessary at the present time to include them in our list. The only reason for our not having offered them before was that we had not been in shape to handle them. This year we have secured an extra fine stock of gladiolus bulbs that we can offer at reasonable prices.

The improvement that has been made in the gladiolus during the past 15 or 20 years is very remarkable. The old-fashioned small red or yellow flowers have become a thing of the past and we now have a magnificent array of colors, and flowers that are three or four times the size of the old common gladiolus. Almost every color in the rainbow is represented in the newer varieties.

We do not wish to offer any kinds of flowers that are not of the simplest culture, but the gladiolus is one of the easiest grown flowers that we have in our gardens. No extra care is required to produce the finest flowers. Every bulb that we offer is capable of producing a large spike of beautiful flowers the first season. They are not the small bulbs that require two years growth before blooming but every one of them is an extra large blooming size bulb. Everyone should try at least a dozen in their flower garden this year. With gladiolus one does not have to secure new bulbs every year. When you once get a start they will increase every year so that you will have two or three times as many bulbs each year than you had before. All that is required is to take them up when the stalks have dried down to the ground in the fall and store them in a cool dry place over winter.

Finest Varieties Mixed. This includes one of the best arrays of colors that we know of. Hardly any two will be alike. They range from the deep red shades to light yellow and pure white. The bulbs are all of blooming size. Price 40 cents per dozen; 35 bulbs for \$1.00.

SWEET PEAS

No more popular flower is grown than the sweet pea either for display in the garden or for cut flowers. They are very easily grown if a few general directions are followed. They should be sown very early in the spring and the seeds should be placed several inches deep in the ground and covered gradually. The planting of sweet peas late in the season and only an inch deep is the cause of a large number of failures. We are not listing separate named varieties, but the mixture we offer is made up of the best named varieties we can secure, ranging in color from a very dark maroon to light pink and white. This mixture has given marked satisfaction wherever it has been tried during the past two years. We can recommend it for general planting.

Finest Mixed per ounce 10 cents, $\frac{1}{4}$ pound 25 cents, pound 60 cents, postpaid. Assortment $\frac{1}{2}$ ounce each of six named varieties, our selection in separate packages, 25 cents.



Vegetables



Seed Packets. Our seed packets are unique. They do not show fancy colored pictures of the kind of vegetable supposed to grow from the seed contained, made up according to the artists imagination, but they do give more information about the seed contained than is found on any other packets of vegetable seeds offered to-day. On our vegetable seed packets we state where the seeds are grown and when, the guaranteed percentage of germination, the amount of seeds in the packet and the stock number. We also give a brief description of the variety, directions for seeding and general culture and a statement of our guarantee. We know of no other firm or seedsman giving this information on their seed packets. We believe that it is due to the buyer to know something about the seeds he purchases so we have inaugurated this "new seed packet." The securing of all this information necessitates considerable additional expense and labor and makes our seeds cost more than others on the market but we think they are worth it. However, we are offering our seeds at prices as low or lower than many of the seed firms who do not furnish this information and make no sort of guarantee on their seeds. This is worth thinking about.

Market Gardener's Prices. We publish in the last pages of this catalog a market gardener's price list to which we wish to call the attention of all market gardeners or other large buyers.

BEANS

Owing to the large number of varieties of beans it is impracticable to list nearly all of the number. We have tried to include in this list most of the types that we consider best for Northwestern conditions. For very early string beans the green podded bush varieties are usually grown. For general crop the wax varieties are preferred. The White Navy or Pea bean is the standard variety for field culture. It is well adapted to being grown in the Northwest, either on new or old ground.

Culture: Beans do not make any great demands on soil fertility. Not only will they grow on almost any soil, but they tend to benefit rather than impoverish soils upon which they are grown. It is safe to plant them only after the danger of late frost is past. For extra early string beans, however, it is customary to plant a few earlier and run the risk of their being frozen. Sow bush varieties in drills two to three inches apart, using a quart to 150 feet of row. Thin the plants to from three to six inches apart in the row. Hoe well in dry weather to keep down the weeds. Sow for two weeks for succession.

Burpee's Stringless Green Pod. An extremely early, green-podded bean of fine quality. Pods are about five inches in length, round, straight, and perfectly stringless. The best green-podded bunch bean for the home garden. Valuable for a succession of plantings throughout the season. In trial grounds at Brookings this year, this variety was considered one of the best that was being grown. It continued in bearing and furnished string beans throughout the season.

Giant Stringless Green Pod. Similar to Burpee's Stringless Green Pod, but from a few days to a week later and has larger pods. The quality is very fine.

Extra Early Red Valentine. A popular standard, early, green-podded bunch bean. Bushes about fifteen inches high, productive, of round, fleshy pods of good flavor.

Burpee's New Stringless White Wax. A late white-seeded bean of fine quality. The large, flat, yellow pods are very brittle and perfectly free from strings. A general purpose variety. It may be used as a green snap or shell bean and on account of its color is also good as a dry shell bean.

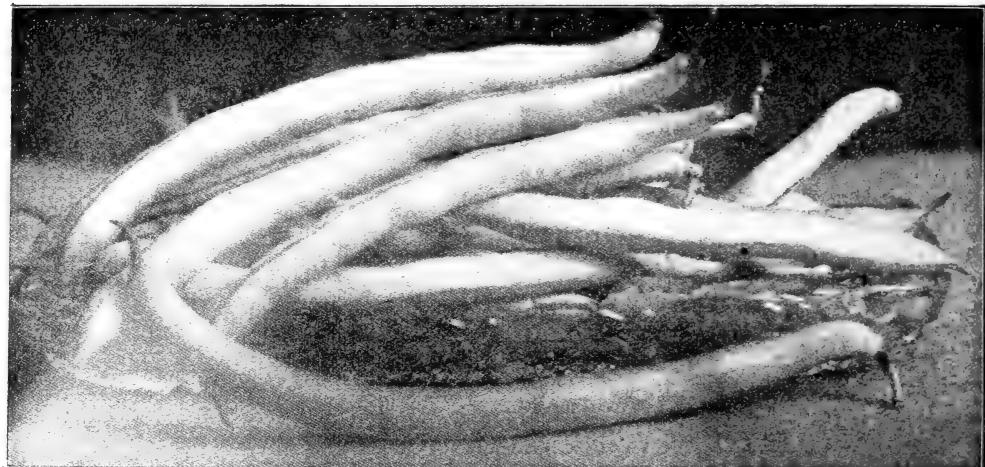
Currie's Rustproof Wax. An early, hardy, black-seeded variety, very productive of large, flat pods. More resistant to pod-rust than most other varieties. We recommend this for all conditions.

Pencil Pod Black Wax. One of the most productive and popular of the wax podded varieties. Pods round and deeply saddle-backed, six to seven inches long, light golden-yellow color.

Wardwell's Kidney Wax. A standard variety of strong, upright growth, early and very productive. Pods straight, flat, rich golden yellow in color and of good quality. This variety is so well and favorably known that it recommends itself to more general use.

Detroit Wax. One of the popular wax varieties having broad, flat pods and white seeds with dark brown markings about the eye. We have not cataloged this before, but consider it a valuable acquisition to our list.

Refugee Wax. An early variety similar to the well-known green-podded Refugee except in color of pods, and season, which is very early. We have not tried this extensively, but so far as tried, it has given good satisfaction.



WEBBER WAX.

A new variety of great merit. One of the earliest and most productive beans that we have tested. In our trial grounds the past season this string bean was produced earlier than any other variety of wax bean. The plant does not tend to grow to vine but holds the pods well up which makes it desirable for both the home and the market garden. In some respects this bean resembles Wardwell's Kidney Wax bean, but it is earlier and the pods are rounder. We recommend this variety for trial by anyone who wishes to secure something better than the ordinary in wax beans. $\frac{1}{3}$ pt., 15 cts.; pt. 30 cents.; qt. 55 cts., postpaid. By express or freight, qt. 40 cts.; pk. \$1.75.

Henderson's Bush Lima. This is the bush selection of the small Sieva Lima. The bushes are very productive and the beans when young are of excellent flavor. Recommended for culture as a green shell bean in the latitude of the southern half of Minnesota and South Dakota. $\frac{1}{3}$ pt., 15 cts.; pt. 30 cents.; qt. 55 cts., postpaid. By express or freight, qt. 40 cts.; pk. \$1.75.

Burpee's Bush Lima. The bush form of the large Lima bean. Very productive of large pods. Later than Henderson's Bush Lima. Not recommended for planting on a large scale north of the southern boundary of Minnesota. $\frac{1}{3}$ pt., 15 cts.; pt. 30 cents.; qt. 55 cts., postpaid. By express or freight, qt. 40 cts.; pk. \$1.75.

Siebert's Early Pole Lima. The earliest of the large Limas. In earliness and in the quality of the green beans it is far ahead of any of the other large pole Limas. The vines are very productive and the pods are of immense size. $\frac{1}{3}$ pt., 15 cts.; pt. 30 cents.; qt. 55 cts., postpaid. By express or freight, qt. 40 cts.; pk. \$1.75.

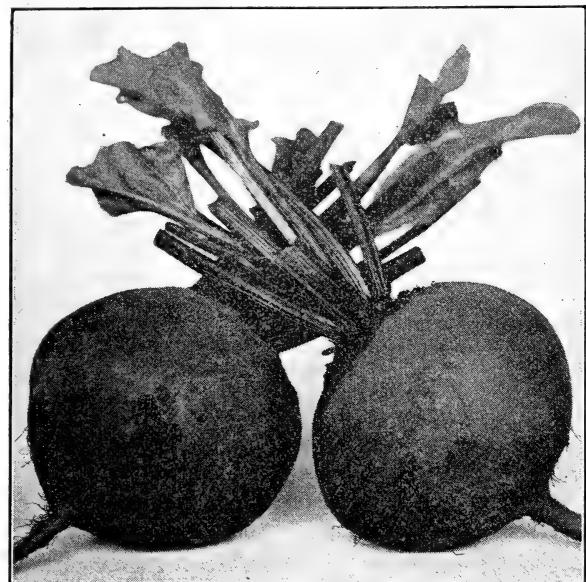
White Navy or Pea Bean. The standard variety for field culture for dry shell beans. Our strain is a particularly good yielder. The beans are small, thin-skinned and of the finest quality. By express or freight, qt. 30 cts.; pk. \$1.25; bu. \$4.00.

Prices, any variety except where noted: $\frac{1}{3}$ pt. 10 cts.; pt. 25 cts.; qt. 45 cts., postpaid. By express or freight, qt. 30 cts.; pk. \$1.50. For prices on larger quantities, see Market Gardener's wholesale price list on pages 63 and 64.

BEET

There is a vast difference in garden beets as well as in sugar beets and mangels in the quality and flavor. This is sometimes a difference in the variety and is sometimes due to differences of soil. In the following list we have taken those that we know have done well in the Northwest. Our stock of seed is obtained from the best French growers.

Culture: Sow as soon as the ground can be worked in the spring for an early crop, and from ten days to two weeks later for general planting. One or two plantings of the same variety or one planting of an early and a late variety will supply fresh beets for the entire season for they can be eaten from the time they are an inch in diameter until they are mature. Sow in drills 16 inches to 2 feet apart for the garden varieties, and 18 inches to 2½ feet for the field or stock beets. If desired, for garden use they may be sown very thickly and thinned out as needed for the table. Plants should be left about 4 inches apart in the row. Some of the table beets are occasionally grown for stock use, but the mangels give so much larger yields that they are more generally used. It requires about 5 to 8 pounds of seed to plant an acre of field varieties.



CRIMSON GLOBE BEET

maturity, fine flavor and good qualities.

Half-long Blood. An excellent, dark red beet for winter use.

Any variety listed above, postpaid, $\frac{1}{2}$ oz., 5 cts.; oz. 10 cts.; $\frac{1}{4}$ lb. 20 cts.; lb. 60 cts. See "Field Root Crops" for Mangels and Sugar Beets. Consult Market Gardener's prices for larger quantities of garden beets.

Crimson Globe. A very good, early and main-crop variety, of globular shape, deep crimson color, fine quality and handsome appearance.

Crosby's Egyptian. Extra early, dark red in color. An improved strain of the original Egyptian. There is no finer extra early beet offered.

Detroit Dark Red. An excellent main-crop garden beet. Noted for its small tops and upright growth. Roots globular, blood-red in color, remaining tender and sweet for a long time.

Eclipse. A popular early beet. Roots round, blood-red, foliage dark. Very productive.

Edmand's Blood Turnip. A valuable sort much grown by market gardeners because of its regular shape, early

CABBAGE

Culture: No soil can be too rich for the cabbage. Plant food in an available form is absolutely necessary for the production of good heads. The seed may be sown directly in the field or it may be sown in boxes or frames and transplanted to the garden or field. The latter is the more general practice because of less danger from the cut worms and flea beetles which trouble the young plants before they are able to take care of themselves. One-fourth pound of seed will ordinarily plant an acre. The small heading varieties such as Early Jersey Wakefield or Winnigstadt may be transplanted two to three feet apart each way, while the larger varieties require three to four feet. The earlier maturing varieties do better under prairie conditions because the cabbage likes a moist atmosphere. The large late varieties are very likely to be injured by the hot sun and the dry air of the later summer months. Light frosts do not injure cabbage at either end of the growing season provided they are properly hardened. When taken directly from the house or frame and transplanted they are very tender and are easily taken either by hard frost or by the various insects which attack them. To protect them from the attacks of the flea beetle the plants should be dusted with tobacco dust as often as necessary, but if the insects once become established it is hard to dislodge them.

Eureka or First Early. Bulletin 91 of the South Dakota Agricultural College in giving results of a trial of one hundred and twenty-seven varieties of cabbage, reports as follows about this sort: "Eureka or First Early, from J. M. Lupton, was especially desirable as the earliest variety, maturing fully a week before the early Jersey Wakefield." In the table accompanying this report the Eureka is recorded as one out of only five that headed one hundred per cent. In our trial plots in 1909, 95 per cent of the plants of this variety developed good heads. Our stock of seed is from J. M. Lupton, who furnished that for the above tests.

Early Jersey Wakefield. The popular, first early cabbage. Heads cone-shaped, solid, with few outside leaves. Very desirable for home or market.



CHARLESTON WAKEFIELD CABBAGE

Early Winnigstadt. A very valuable early and general crop cabbage for the Northwest. It is very hardy and a sure header under very severe conditions. The heads are about the size and shape of the Early Jersey Wakefield and are very solid. They remain longer without breaking open than the Early Jersey Wakefield. Dr. T. H. Youngman, of Canon City, Colo., says: "The Early Winnigstadt all headed and were as hard as rocks."

Early Spring. The earliest, flat cabbage. Heads solid, six to eight inches in diameter and of fine flavor. In our trials in 1909 this was nearly as early as the Early Jersey Wakefield and the heads were about twice the size and weight.

Early Summer. A desirable second early, flat sort, producing solid heads of excellent quality.

All Seasons. A popular, medium sized cabbage, ready for use as early as the Early Summer, but of much larger size. Has always given good results in the Northwest.

Succession. An excellent second-early sort producing solid heads of good size.

Hollander or Danish Ball Head. In the Northwest this variety is probably grown to a larger extent as a main crop than any other two varieties. It is hardy, heads well, and is also a good keeper and shipper. No other variety excels this as a long keeper. Pkt. of 300 seeds, 5 cts.; oz. 25 cts.; $\frac{1}{4}$ lb. 75 cts.; lb. \$2.25, postpaid.

Bridgeport Drumhead. A large late cabbage of firm texture and good shipping qualities. A valuable sort for general use.

Premium Flat Dutch. An improved strain of the old standard Late Flat Dutch introduced into this country by the early settlers. Not yet improved upon as a large late sort. In our trials in 1909 about 90 per cent of the plants developed good heads, many of which weighed from 12 to 15 pounds.

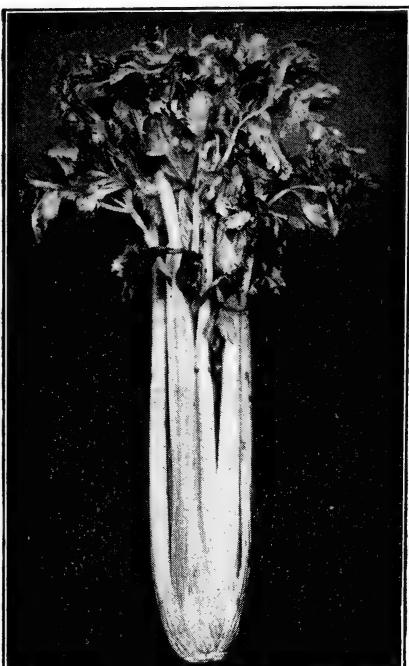
Any variety except where noted, Pkt. of about 300 seeds, 5 cts.; oz. 20 cts.; $\frac{1}{4}$ lb. 60 cts.; lb. \$1.60 postpaid.

CHARLESTON WAKEFIELD

This variety is similar to Early Jersey Wakefield and is supposed to be about ten days later. In our trial grounds in 1908 and 1909 this variety was the best and surest heading early cabbage and proved to be just about as early as the Early Jersey Wakefield. Its superiority over all other varieties of early cabbage was clearly demonstrated. Pkt. of 300 seeds, 10 cts.; oz. 30 cts.; $\frac{1}{4}$ lb. 75 cts.; lb. \$2.25, postpaid.



PREMIUM FLAT DUTCH CABBAGE



GOLDEN SELF-BLANCHING CELERY

Culture: Sow the seed in flats or frames and transplant to the open field. The usual method is to set the plants in rows 3 to 4 feet apart, but for the garden they are often grown in beds with the plants 6 or 8 inches apart each way. By the latter method an exceedingly rich soil and a large amount of water are necessary to support the large number of plants to a given area. When full grown the plants should be blanched by packing the earth up around them or by using boards. When set out in beds they will blanch naturally if the sides of the bed are boarded up so the light cannot reach the plants. The requisites for good celery are rich soil, plenty of water and careful attention to cultivation through the season.

Golden Self-Blanching. A very popular early variety, of dwarf, compact habit. One of the best in quality and comes nearest to being a truly self-blanching variety of any grown. We recommend this for general culture. Our seed is the choicest French Grown. Celery of this variety grown from our seed has taken the premiums at most of the county fairs in our vicinity and has also taken first premium at the South Dakota State Fair for two years. Pkt. 10 cts.; Oz. 35 cts.; $\frac{1}{4}$ lb. 75 cts.; lb. \$2.00, postpaid.

White Plume. This is the earliest and one of the most easily blanched varieties grown. Extensively grown for market. Pkt. 5 cts.; oz. 20 cts.; $\frac{1}{4}$ lb. 50 cts.; lb. \$1.40, postpaid.

Giant Pascal. A large, late variety; easily blanched and a very good keeper. Pkt. 5 cts.; oz. 20 cts.; $\frac{1}{4}$ lb. 50 cts.; lb. \$1.40, postpaid.

Kalamazoo. This is not a self-blanching variety but is one of the best of the general crop sorts where artificial blanching is resorted to. It is extremely large, solid and crisp. Pkt. 10 cts.; oz. 40 cts.; $\frac{1}{4}$ lb. 85 cts.; lb. \$2.75, postpaid.

CARROT

Culture: Sow seed as soon as the ground is warm enough in drills 1 to 2 feet apart in the garden and 2 to 3 feet apart for field varieties. For field planting they may be sown late in May or early in June. Earlier seeding, however, is preferable. Careful, clean cultivation is required for if young plants are crowded at all with weeds they will be destroyed.

Danvers Half Long. A great favorite for all purposes. One of the best for stock feeding. Very productive on all soils. Roots large and of good quality.

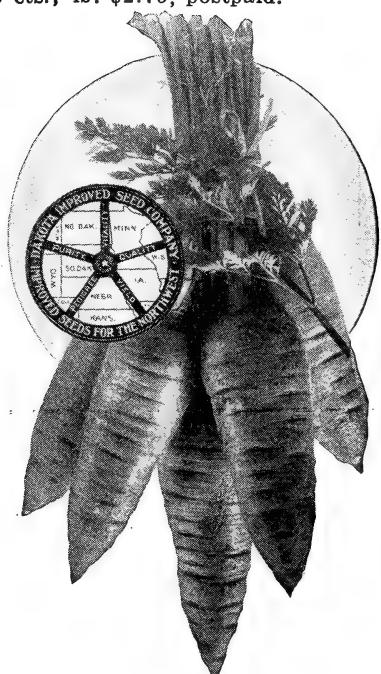
Chantenay. A medium early carrot, about six inches long, stump-rooted, deep red or dark orange in color, fine grained and sweet. One of the finest in quality for the table.

Early Scarlet Horn. The popular early variety. Roots small, orange-red, smooth and fine-grained.

Oxheart or Guerande. A short, thick carrot, very blunt at the apex. Of very good quality for the table and a good yielder.

Any variety: $\frac{1}{2}$ oz., 5 cts.; oz. 10 cts.; $\frac{1}{4}$ lb. 30 cts.; lb. 75 cts., postpaid. See "Field Root Crops" for stock carrots.

CELERY



DANVERS HALF LONG CARROT

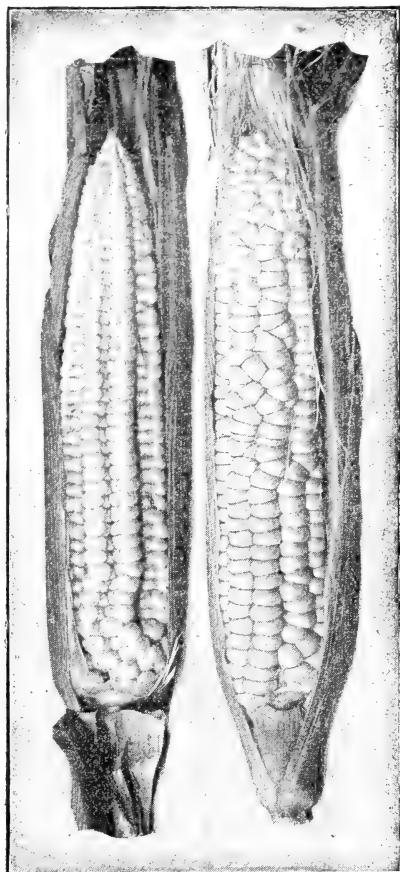
SWEET CORN

For a succession of crops we recommend the following varieties which are named in the order of maturity: Malakoff, Golden Bantam, White Mexican, Crosby's Early, Early Evergreen, White Evergreen and Stowell's Evergreen. In the northern part of our territory the Malakoff, Golden Bantam and White Mexican are all that are needed to produce corn of the finest quality throughout the corn season.

Culture: In general the culture of sweet corn is very much the same as field corn. Sweet corn should not be sown until the soil is somewhat warmer than required for field corn as there is danger of its rotting in the ground. Small early varieties may be sown in drills $2\frac{1}{2}$ to 3 feet apart with the plants 6 to 8 inches apart in the rows. Later and larger varieties should be planted further apart, depending upon the size of the plant.

MALAKOFF SWEET CORN . . .

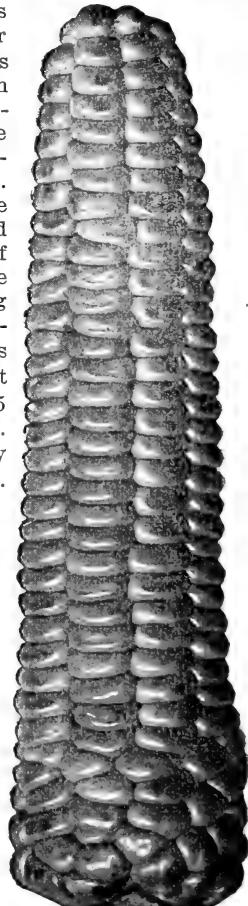
The earliest "sweet corn" known. Similar to the well-known Peep O' Day, but of better quality. The ears are very small and are borne in large numbers. Single stalks produce from 2 to 4 ears each. There are other varieties of corn as early, but none of them has the sweet and delicious flavor of the Malakoff. At the Universal Exposition at St. Louis in 1904, in the exhibit of the United States Department of Agriculture in the Government Building a wax model of the Malakoff Sweet Corn was shown as the "earliest sweet corn." $\frac{1}{3}$ pt. 15 cts.; pt. 30 cts.; qt. 50 cts., postpaid. By express or freight, qt. 35 cts.; pk. \$2.00.



Red Cory and Malakoff, Picked at Same Time to Show Comparative Earliness of the Two Varieties.

GOLDEN BANTAM SWEET CORN

An early variety, only a few days or a week later than the Malakoff. The stalks are $3\frac{1}{2}$ to 4 feet high and average two ears to each stalk. When ready for use the grains are deep yellow and present a very attractive appearance served on the ear. It is without a rival in sweetness and richness of flavor. Very desirable for the home garden. On the market the yellow appearance is an objection until it becomes well known and then is served to distinguish it from the more common white varieties. Everyone remarks when tasting Golden Bantam for the first time: "This is the best sweet corn I have ever eaten. It is delicious." $\frac{1}{3}$ pt. 10 cts.; pt. 25 cts.; qt. 45 cts.; postpaid. By express or freight, qt. 30 cts.; pk. \$1.75.



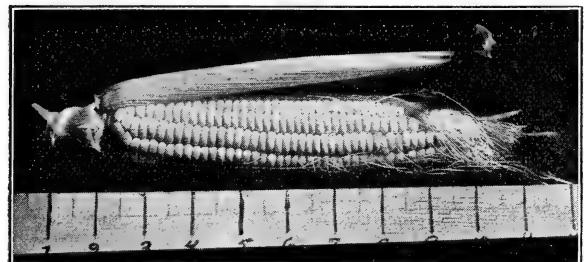
GOLDEN BANTAM

Red Cory. The standard early corn. Compared with the Malakoff it is nearly, if not quite as early, has larger and more regular ears, but is not as sweet. A good early corn for market. $\frac{1}{3}$ pt. 10 cts.; pt. 25 cts.; qt. 40 cts., postpaid. By express or freight, qt. 25 cts.; pk. \$1.10.

White Cory. Similar to Red Cory but white instead of reddish in color. $\frac{1}{3}$ pt. 10 cts.; pt. 25 cts.; qt. 40 cts., postpaid. By express or freight, qt. 25 cts.; pk. \$1.10.

Early Champion. This is the first early large sweet corn. Ears 12-rowed; kernels white, very sweet and tender. Excellent for both early and late planting. $\frac{1}{3}$ pt. 10 cts.; pt. 25 cts.; qt. 40 cts., postpaid. By express or freight, qt. 25 cts.; pk. \$1.10.

Crosby's Early. A favorite second early variety much used for canning purposes. Ears 10 to 12-rowed and about 7 inches long. Quality good. $\frac{1}{3}$ pt. 10 cts.; pt. 25 cts.; qt. 40 cts., postpaid. By express or freight, qt. 25 cts.; pk. \$1.10.



WHITE MEXICAN SWEET CORN

variety there is none better. $\frac{1}{3}$ pt. 10 cts.; pt. 25 cts.; qt. 45 cts.; postpaid. By express or freight, qt. 30 cts.; pk. \$1.25.

Early Minnesota. The old standard early or second early variety. Somewhat earlier than Crosby's Early and about a week or ten days later than Malakoff. Quality good, ears eight-rowed, of good size and very regular in form. Desirable for either home use or market. $\frac{1}{3}$ pt. 10 cts.; pt. 25 cts.; qt. 40 cts., postpaid. By express or freight, qt. 25 cts.; pk. \$1.10.

Dan West. A sweet corn that has been grown in South Dakota for a number of years. It is a medium early corn of about the same season as the Early Minnesota, but has a larger ear than any other variety of this season that we have tested. A very desirable corn for home use or market. We recommend it for trial. $\frac{1}{3}$ pt. 10 cts.; pt. 25 cts.; qt. 45 cts., postpaid. By express or freight, qt. 25 cts.; pk. \$1.10.

Black Mexican. Early, very sweet and good. $\frac{1}{3}$ pt. 10 cts.; pt. 25 cts.; qt. 45 cts., postpaid. By express or freight, qt. 30 cts.

Early Evergreen. Season a week or ten days earlier than Stowell's Evergreen. This variety, because of its good quality and medium season, is one of the best general crop varieties for the northwest. $\frac{1}{3}$ pt. 10 cts.; pt. 25 cts.; qt. 40 cts., postpaid. By express or freight, qt. 25 cts.; pk. \$1.10.

White Evergreen. Similar to Stowell's Evergreen except in color, which is pure white. Season somewhat earlier than Stowell's. These qualities combined with its fine flavor make it a very desirable sort for general crop. $\frac{1}{3}$ pt. 10 cts.; pt. 25 cts.; qt. 40 cts., postpaid. By express or freight, qt. 25 cts.; pk. \$1.10.

Stowell's Evergreen. The standard general crop or late sweet corn. No other variety has been able to displace it either in the home or market garden. For size and appearance of ear, productiveness and sweetness there is none better. $\frac{1}{3}$ pt. 10 cts.; pt. 25 cts.; qt. 40 cts., postpaid. By express or freight, qt. 25 cts.; pk. \$1.10.

Country Gentleman. One of the sweetest late varieties in cultivation. Ears of large size; kernels long, pointed and arranged irregularly on the cob. $\frac{1}{3}$ pt. 10 cts.; pt. 25 cts.; qt. 45 cts., postpaid. By express or freight, qt. 30 cts.; pk. \$1.50.

CAULIFLOWER

The cauliflower is not grown to so large an extent as its value would warrant among our vegetables. There are certain difficulties which present themselves, first of which is that the seed is rather expensive, and second it requires good care and attention to produce good heads. The two varieties which we list here are both very early and with good care will produce good heads in almost any season.

Culture: Grown much the same as cabbage. The plants are, however, more delicate and require more attention. One ounce of seed will produce about 1,000 plants.

Earliest Dwarf Erfurt. One of the best and earliest varieties. Plants dwarf and compact with short stems and small leaves.

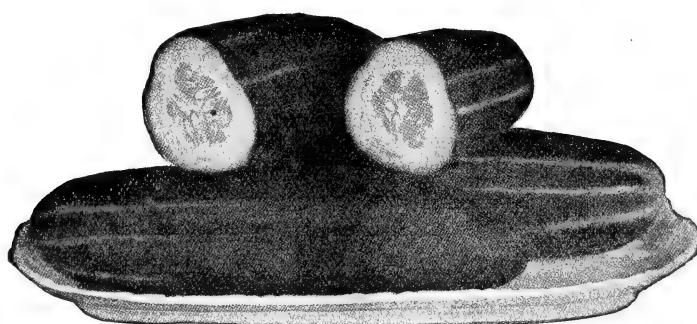
Early Snowball. In earliness, reliability in heading, general appearance and size of head this is unequalled. A very popular variety.

Either variety: Pkt. 10 cts.; $\frac{1}{2}$ oz., 75 cts.; oz. \$1.25.

CUCUMBER

Culture: Sow in the open ground when danger of frost is past. Plant from 6 to 20 seeds in a hill and have the hills from 4 to 6 feet apart. The greatest pest of the young plants is the striped beetle which attacks them just as soon as they are out of the ground. In small gardens the most effective way to check the beetles is to cover the hills with mosquito netting held up with wooden frames. In large plantings, scatter dust, lime or ashes on the plants while wet with dew or use Paris green sprayed on the plants in very weak solution. As soon as danger from these pests is over, thin the plants so as to leave 3 or 4 plants to a hill. Early cultivation is necessary as the plants soon cover the ground. If the vines are expected to bear small cucumbers for pickles throughout the season, the small cucumbers should be gathered every day or two and none allowed to mature.

Improved Early White Spine. This was the earliest and most productive variety in our trial grounds in 1909. It is without an equal as an all around early and general crop for home or market.



IMPROVED EARLY WHITE SPINE CUCUMBER

Arlington White Spine. One of the most popular of the White Spine sorts. Vines hardy and vigorous, producing fine, uniform fruits about eight inches long, the cucumbers retaining their dark green color until well advanced towards the ripening stage. The flesh is white, very crisp and of excellent flavor.

Extra Long White Spine. A beautiful large cucumber, very regular in size and form and of excellent quality.

Chicago Pickle. A medium-sized variety with prominent spines. A vigorous grower and a very prolific producer. Highly esteemed as a pickle variety.

Cumberland. This variety of the white spine type is quite a favorite for pickling. Fruits at pickling stage are thickly set with spines, grow very straight, and uniform and are very dark green in color. Fruits attain a fair size and are good for both pickling and slicing.

Everbearing. An extremely early sort. Vines are vigorous and prolific. Medium sized fruits, four to five inches in length and about an inch and a half in diameter.

Improved Long Green. An old and popular variety, producing large fruits, ten to twelve inches in length, slim, but uniform in size, dark green in color. Flesh is solid, crisp, and of excellent flavor. Very highly esteemed for garden use.

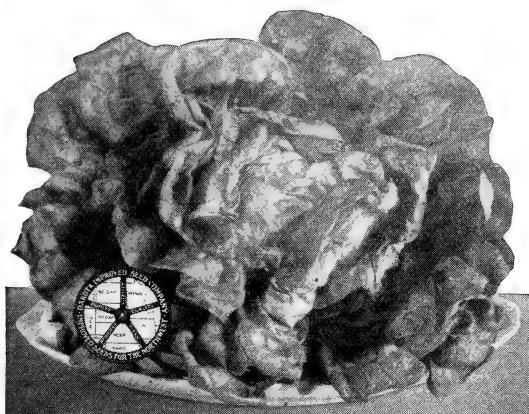
Any variety: $\frac{1}{3}$ oz., 5 cts.; oz., 10 cts.; $\frac{1}{4}$ lb., 30 cts.; lb., 90 cts., postpaid. By express or freight: Lb., 80 cts.

Aksarben White Spine. One of the best strains of White Spine. A vigorous grower and prolific cropper. Fruits are remarkably uniform in size, growing from eight to ten inches long, dark green in color and very handsome in appearance. One of the best varieties for slicing and forcing.

LETTUCE

The varieties which are listed here are those which are especially adapted for cold frames or outdoor culture. All of them can be recommended for this purpose, but we wish particularly to call attention to the May King, Grand Rapids, Hanson, Iceberg and Prizehead. The old popular Prizehead is considered by many as very desirable, though the color and texture of the leaves are somewhat against it.

Culture: Seed can be sown almost any season of the year, though early spring is the most desirable time as a moist atmosphere is required for the best development. Sow the seed thickly in drills from 6 to 12 inches apart. For early use pick leaves directly from the plants. Later thin the plants in the row or transplant from 6 to 8 inches apart. Grown this way they will develop heads or bunches which are much better in quality than those grown thickly in the row. Rapidity of growth is necessary to produce tender, edible plants. Plenty of water and rich soil are of the greatest importance.



MAY KING LETTUCE

broad, very much crumpled, twisted and frilled. largely planted varieties in the United States.

California Cream Butter. One of the best summer varieties of head lettuce. Forms round, crisp, solid heads of very fine flavor.

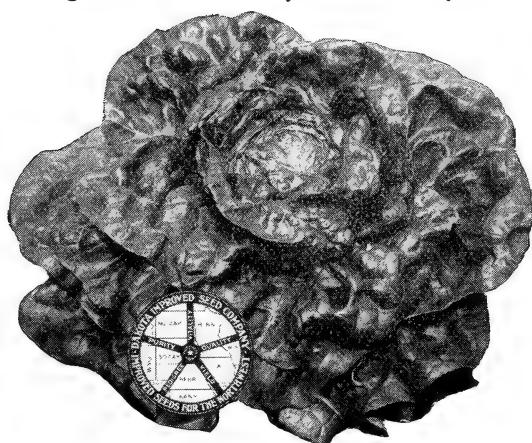
Prizehead. Probably grown to a larger extent than any other variety in the United States, especially in the west. A large, early, bunch lettuce, brown in color, crisp, tender and of good flavor. Recommended for spring and early summer planting.

Hanson. A very large, late, cabbage-heading variety; very crisp and firm in texture; quality sweet and good. This is the standard summer head lettuce and succeeds everywhere. Its popularity is attested by the fact that it has been listed by over two hundred seedmen in this country and ranks as one of the three most largely grown varieties in the United States.

Iceberg. Similar to the Hanson, except that it is smaller and is tinged with brown. The quality is good and very sweet. A newer variety than Hanson, but rapidly gaining in favor.

Morse. Similar to Black-Seeded Simpson except in color of seed, which is white.

Any variety: $\frac{1}{3}$ oz., 5 cts.; oz., 10 cts.; $\frac{1}{4}$ lb., 30 cts.; lb., 90 cts., postpaid.



CALIFORNIA CREAM BUTTER

MUSKMELON

Although muskmelons cannot be very satisfactorily grown for market in the extreme north, the early varieties should occupy a place in every home garden. The Rocky Ford and Emerald Gem we especially recommend.

Culture: Sow and cultivate same as cucumber. As the full season is usually required for development it is well to plant as early as the weather will permit and use early varieties.

Emerald Gem. An extra early melon of small size, smooth, emerald green skin and thick salmon-colored flesh. This is the richest flavored melon in cultivation. Valuable for the home garden on account of its earliness and fine quality.

Early Green Nutmeg. Very early; flesh green; very sweet; of good flavor. This was the earliest variety in our trial grounds last year and bore well throughout the season. Valuable for both home use or market.

Extra Early Hackensack. The standard, very early variety and very popular for both home use and market. The melons are of fair size, nearly round in shape, flattened at stem and blossom ends; heavily ribbed and netted. Flesh green and of good flavor.

Paul Rose. A small to medium-sized melon, slightly oval in shape, well ribbed and netted. Skin turns a light green when ripe; flesh salmon-colored and of delicious quality and flavor. This melon is handsome in appearance and a fair shipper.

Rocky Ford. First introduced as Netted Gem, but now more commonly called Rocky Ford after the place in Colorado made famous by its melons. Fruits small, oblong or oval in shape, well ribbed and very heavily netted, the netting turning to a silver color when ripe. The skin is hard and firm, making it an excellent shipper. Flesh is green in color and of the best quality.

Any variety: $\frac{1}{3}$ oz., 5 cts.; oz., 10 cts.; $\frac{1}{4}$ lb., 35 cts.; lb., \$1.20, postpaid.

WATERMELON

A good warm soil and a secluded place are the two points necessary for success in raising and securing good watermelons. There are comparatively few varieties that are sufficiently early to be adapted to our section of the country. For extremely early, no melon gets ahead of Cole's Early. The fruits are rather small, seldom attaining large size. Fordhook Early is an excellent variety, not much later than Coles Early. We especially recommend it for general crop north. The other varieties listed are for the southern part of our territory and will mature there under favorable conditions.

Culture: In general the culture of the watermelon should be the same as the cucumber, but the vines should be given more room to spread. Watermelons will succeed on sandier soil than some other vines. This kind of soil hastens development and maturity which is very necessary in northern latitudes.

Cole's Early. The earliest watermelon in cultivation. Can be grown in all the northern states. Valuable for both home and market use where larger varieties will not mature. A larger acreage of this melon is grown in the Northwest every year than of any other variety.

Fordhook Early. The earliest large-fruited melon. Fruits of good size, green skin and red flesh. A good shipper. Recommended for planting in South Dakota and southern Minnesota.

Kleckley's Sweet. The sweetest of all watermelons. The fruits are very large in size and dark green in color. The flesh is bright scarlet, sweet, sugary and of very fine texture. Not early enough for the extreme north but suitable for the latitude of Mitchell and south of this. Several carloads of this were grown near Mitchell by one grower the past season.

Peerless or Ice Cream. A very fine flavored melon for early home market. The fruit is medium sized, oval, bright green. The flesh is bright scarlet and very sweet.

Halbert Honey. An early, large dark green melon of excellent quality. Valuable to grow for near market, but is not a good shipper because of its thin, brittle rind.

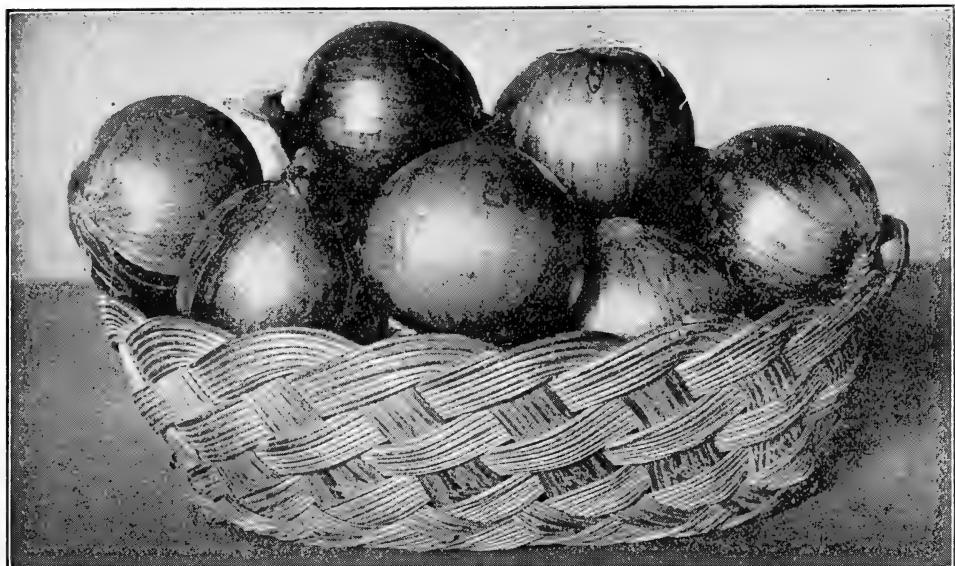
Sweetheart. Rather late for our vicinity. A fine large melon. For market and shipping it is among the best and will remain in condition for use longer than most others.

Any variety: $\frac{1}{3}$ oz., 5 cts.; oz., 10 cts.; $\frac{1}{4}$ lb., 20 cts.; lb., 60 cts., postpaid.

ONION

There is no vegetable with which one should take more care in the selection of seed than the onion. Probably more poor onion seed is sold every year than of any other one crop. Our seed is grown by the best growers who make careful tests of all stocks for germination before we receive them. To make matters doubly sure we test all stocks for germination and growth after receiving them so you are sure to get seed that will grow and produce good onions.

Culture: No other crop responds to good care as the onion. For very early use the sets give the best returns. These should be planted 3 or 4 inches apart in rows one foot apart. For general crop, sow the seed as early as the ground can be worked in the spring in drills from 1 foot to 18 inches apart. Cultivate early and thoroughly, but do not cover the plants with soil when cultivating. Shallow cultivation is better than deep. A clean soil, plenty of water and thorough surface cultivation are necessary to raise a good crop.



MINNESOTA GROWN, RED GLOBE ONIONS

Southport Large Red Globe. By many this is considered the finest red sort. It is perfectly globular in shape and of large size. Skin is dark blood red in color. It is a splendid keeper and the quality is excellent. In western markets this brings the highest price. For general crop either in the home garden or for market this variety should occupy the most prominent place.

Large Red Wethersfield. This variety is the popular red onion usually found in all markets. It is medium early and is a very good keeper. It is probably the largest and hardest of the American varieties of onions. It will yield a good crop when many others will fail because of the unfavorable conditions.

Southport White Globe. A very beautiful, large, white onion. Though not as good a keeper as some of the red and yellow sorts, it is a very popular onion for early market. Pkt., 5 cts.; oz., 35 cts.; $\frac{1}{4}$ lb., 80 cts.; lb., \$2.50., postpaid.

Southport Yellow Globe. This is the finest, largest, yellow onion grown, similar in size and form to the Red Globe. It is later in ripening than the Yellow Globe Danvers and larger in size. It is a good keeper and a heavy cropper.

Yellow Globe Danvers. This is the standard yellow globe onion seen in most of our markets. No other varieties seem to be able to displace it and its companion, the Large Red Wethersfield. Both are hardy, good croppers and excellent keepers and seldom fail to give good returns.

Prizetaker. This onion is of immense size, globular in shape, hard and firm. The skin is straw yellow in color and the flesh is fine-grained and of excellent flavor. A fairly good keeper, but not equal to the Red Wethersfield, Red Globe or Yellow Globe Danvers in this respect.

Mammoth Silver King. A large, white, Italian sort, with tender, white flesh. It grows quickly and matures rather early. It is one of the most striking onions in appearance and is valuable for marketing in autumn and early winter.

White Barletta. A very early white onion grown for early bunch onions and also for pickles.

Early White Welsh. A perennial onion grown for green onions in early spring. Does not form a well-defined bulb like most onions but produces fine green shoots for bunching. Specially valued by market gardeners for this purpose.

Australian Brown. An early, medium-sized, globular onion. The flesh is white and the skin is bright, reddish brown in color. This variety is considerably earlier than the Red Wethersfield and is a good keeper.

Any variety, except the Southport White Globe: Pkt., 5 cts.; oz., 25 cts.; $\frac{1}{4}$ lb., 60 cts.; lb., \$1.85, postpaid.

ONION SETS

Very desirable for planting to secure very early onions for the table. A quart or two is sufficient for an ordinary sized family.

Bottom Sets. Red or yellow sets, per quart, 30 cts.; white sets, per quart, 35 cts., postpaid. Write for prices on larger quantities.

Top Sets. Per quart, 30 cts., postpaid.

PARSNIP

More commonly grown in the home garden than for the market. If the roots are allowed to remain in the ground over winter they will fill in a very convenient place on the table in the spring when other vegetables are becoming scarce.

Culture: Sow the seed as early in the spring as the ground can be worked in drills 12 to 18 inches apart. Have the ground thoroughly prepared by deep plowing and good cultivation before sowing the seed. The plants are somewhat slow in starting from seed, but when once started they are comparatively easy to care for and well repay the labor expended in growing them. The roots may be dug from the field in the fall or early spring.

Guernsey. A very heavy cropper; flesh fine-grained and of good quality. Roots are not so long as the Hollow Crown, but thicker and more easily gathered.

Hollow Crown. This is the standard market gardener's strain. It is the best for general cultivation. It is very sweet and of good flavor.

Either variety: $\frac{1}{2}$ oz., 5 cts.; oz., 10 cts.; $\frac{1}{4}$ lb., 20 cts.; lb., 50 cts., postpaid.

PEPPER

Culture: Sow in hot bed in March and transplant to open field in June. Set the plants about 18 inches apart each way.

Bull Nose. A prolific, rather early variety, bearing large, scarlet fruits. Earlier than the Ruby King.

Chili. Very productive; fruits very small, very red and very hot.

Ruby King. The most popular, large, red pepper. Plants grow two feet high and produce a crop of handsome, large, scarlet fruits. Flesh sweet, tender and mild.

Golden Dawn. A beautiful yellow pepper resembling the Bull Nose in shape, but golden yellow in color.

Any variety: Pkt., 5 cts.; oz., 30 cts., postpaid.



HOLLOW CROWN PARSNIP

PEAS

Culture: Make an early sowing of one of the early peas like Earliest of All and follow this very soon after with one of the early wrinkled sorts and one of the general crop sorts. Sow every week or ten days up to the first or middle of June. In this way one can have peas through the summer months. Sow in single or double rows 18 inches to 3 feet apart. For very early planting, place the seeds about one inch deep and have the later plantings from 2 to 4 inches deep. Place the seeds 2 or 3 inches apart in the row. Cultivate thoroughly as soon as the peas are up and until the vines take up the space.

First and Best. This is the earliest and best strain of smooth white peas. Seeds are small, smooth and white. Vines are vigorous, about $2\frac{1}{2}$ feet high and bear profusely of medium sized pods, each containing five to seven peas.

Alaska or Earliest of All. This is one of the best very early peas grown. It is very productive and matures the entire crop almost at one time so that it can be gathered in two pickings. It is of good quality for a very early pea.

Surprise. One of the earliest of all wrinkled peas. Pods are not so large as the American Wonder, but more numerous. This is not so well known as the older American Wonder, but is rapidly taking the place of the older variety.

Premium Gem. A very dwarf wrinkled pea. An old variety, but still in great demand. Nearly as early as American Wonder. Grown in nearly every private garden in the West.

Leonard's Potlatch. About as early as Premium Gem and has pods like the Telephone. Vines grow from 15 to 18 inches high. The pods are borne abundantly in pairs and are full of delicious peas. This variety shells out as well or better than any other on our list.

Nott's Excelsior. Of the dwarf, early, wrinkled peas there is none better for general culture in the northwest than Nott's Excelsior. Pods average three inches in length and are well filled with very large peas of unusually good quality. Wherever this variety has been grown in South Dakota it has given the best of satisfaction, either for the home garden or for market.

American Wonder. An early, wrinkled pea of finest quality. There is no pea grown that excels the American Wonder in quality. The vines are extremely dwarf in growth, varying from 10 inches to 2 feet in height, depending upon the soil in which they are grown. It is one of the earliest dwarf, wrinkled peas and follows closely upon the Earliest of All.

Sutton's Peerless. A fine garden variety. Foliage dark green; vine strong, about 2 to $2\frac{1}{2}$ feet high. Pods long, similar to Potlatch and well filled with peas of exceptional quality. Valuable for market as well as the home garden.

Gradus. This is one of the finest large-podded, extra early peas introduced. Pods are about four inches long, well filled with large wrinkled, deep green peas of finest quality. Peas remain in edible condition for some time after large enough to use.

Advancer. A wrinkled pea that is very popular with market gardeners because of its great productiveness. Grows 2 to 3 feet high.

Horsford's Market Garden. A very productive wrinkled pea of medium height. Produces more pods than any other standard sort. Much grown for market.

Everbearing. A standard, general crop sort. Very prolific and of excellent quality; pods of medium length and well filled with large peas. Vines are of medium height, attaining $2\frac{1}{2}$ to 3 feet.

Any variety: $\frac{1}{2}$ pt., 10 cts.; pt., 25 cts.; qt., 45 cts., postpaid. By express or freight, qt., 30 cts.; pk., \$1.50.

HAVE YOU TESTED YOUR Seed-Corn? Whether You Have Or Not, It Will be Worth Your While to Read Pages 10 And 11 Before Going Further.

RADISH

For extremely early growing the small globe or olive-shaped varieties and the Icicle are the best. For later spring and early summer some of the long-rooted varieties give better results for the ground occupied. The Icicle and Rosy Gem are the most popular, very early sorts for both forcing and early planting in the open ground.

Culture: Sow as soon as the ground can be worked in the spring in rows 8 to 10 inches apart. Sow at intervals of a week or ten days for a succession up to the middle of June.

ICICLE RADISH

The Icicle is becoming one of the most popular radishes grown. Its earliness, attractive appearance and excellent quality make it one of the most valuable of all radishes. It remains in fine condition longer than any other first early. It is not only the best early variety, but is one of the best general crop varieties as well. In our trial grounds this year our stock of Icicle was ahead of all other varieties tested.

Scarlet Globe. A very popular, extremely early, globe-shaped radish, maturing in about 25 days. None better for early sowing in open ground or for forcing.

ROSY GEM

A handsome, globe-shaped variety of rosy scarlet shading to white at the tip. This is the popular globe-shaped radish for early sowing. The beautiful red roots with the pure white tips present a very attractive appearance either on the table or as offered for sale on the market. Our stock of this is extra choice.

French Breakfast. One of the standard early radishes. Roots of oblong shape, red above, changing to clear white in the lower portions.

Chartier. The largest and handsomest summer sort. The roots are long, crimson, tipped with white. The hardiest sort for summer culture.

Scarlet China Winter Radish. The standard winter variety.

Any variety: $\frac{1}{2}$ oz., 5 cts.; oz., 10 cts.; $\frac{1}{4}$ lb., 25 cts.; lb., 65 cts.; postpaid.

TURNIP

Both the English and the Swede Turnip or Rutabaga are desirable garden crops and the latter are also desirable for stock feeding. One feature about turnips is that they can be sown very late in the season and can follow some of the earlier crops in gardens where space is a consideration.

Culture: For very early use, sow as early as the ground can be worked. For fall and winter sow about the middle of July. Have the drills 12 to 18 inches apart for garden culture and 2 to 3 feet apart for field culture.

Extra Early Purple Top Milan. The Earliest English turnip in cultivation. Roots flat, white, with purple top. $\frac{1}{2}$ oz., 10 cts.; oz., 15 cts.; $\frac{1}{4}$ lb., 30 cts.; lb., 80 cts., postpaid.

Purple Top Strap Leaf. The popular fall flat sort. More largely grown than any other variety.

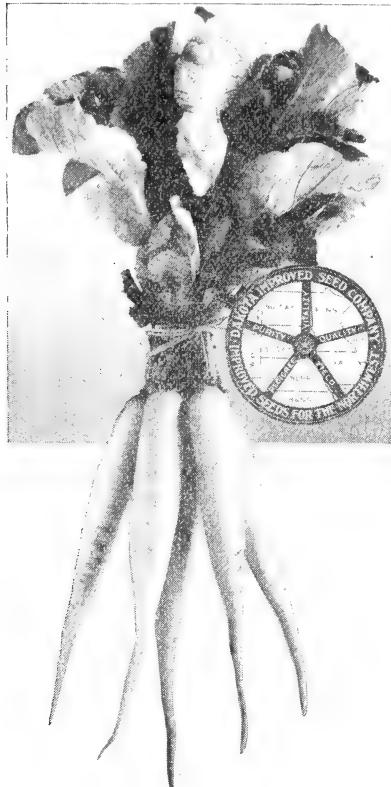
Golden Ball. Not of large size, but firm and of good flavor.

White Globe. Roots white, perfectly globe-shaped, early.

Purple Top Rutabaga. A hardy and productive variety. A good strain.

Any variety except the Early Milan: $\frac{1}{3}$ oz., 5 cts., oz., 10 cts.; $\frac{1}{4}$ lb., 20 cts.; lb., 60 cts., postpaid.

For field varieties see Field Root Crops, page 32.



ICICLE RADISH



TOMATO

Earliana. The earliest, smooth, bright red tomato among the standard varieties. Fruits average about three inches in diameter and are somewhat flattened. Plant is a vigorous grower and a good cropper. We recommend this sort as a first early for the home and market garden. Our seed is Dakota grown.



Chalk's Early Jewel. This variety follows the Earliana in season. For the north it is a very valuable, early and general purpose bright red tomato. Fruits are larger and are produced more abundantly than the Earliana. We recommend this as a very good second early. Our seed is Dakota grown.

Dwarf Champion. A very distinct medium early tomato. Plants are dwarf, having stiff, bushy stems and thick, deep green leaves. Very different from the common varieties. Fruits are deep purplish in color; of medium size and round. This is one of the best and most popular varieties grown in the Northwest.

Acme. The popular standard bright pink tomato; of medium size, and smooth.

Beauty. As early as the Acme and more solid in flesh.

Matchless. An extra large, smooth and handsome, bright red tomato. Considered as one of the best large-fruited general crop sorts.

Ponderosa. Largest fruited variety in cultivation. Fruits are deep purple in color and have small seed cavities containing very few seeds. We have grown fruits to weigh over two pounds each.

Golden Queen. A very good, large, smooth, yellow tomato of mild flavor.

Yellow Pear. Fruits small, yellow, pear-shaped. Very productive.

Red Cherry. Fruits are small and handsome. Used for pickles and preserves.

Ground Cherry. A husk tomato. An old standard garden fruit, greatly valued for preserves. When ripe it is one-half an inch in diameter and very sweet. Excellent to eat out of hand.

Prices: Earliana, Chalk's Early Jewel and Ponderosa: Pkt. 5 cts.; $\frac{1}{2}$ oz. 25 cts.; oz. 40 cts.; $\frac{1}{4}$ lb. \$1.00. Any other of the above varieties: Pkt. 5 cts.; $\frac{1}{2}$ oz. 20 cts.; oz. 30 cts.; $\frac{1}{4}$ lb. 75 cts., postpaid.

FREE To anyone who requests it when he sends in his order we will send a packet of the **Improved Garden Nightshade** free of charge. This is also known in the Dakotas and elsewhere as the Stubbleberry. We have an extra large fruited strain of this that has been admired by everyone who has seen it at the state fairs and elsewhere. In comparison with the much advertised "Wonderberry," we can say that it is equal in quality and has produced larger fruits in our trial grounds. The fruit is not suitable to eat raw but is used for pies, preserves, etc. Try this beside of your "Wonderberry" and let us know the result. We will send a packet free on request with your order.

READ ABOUT "THE BIG 4" TOMATOES ON NEXT PAGE.



THE BIG 4 EARLY TOMATOES

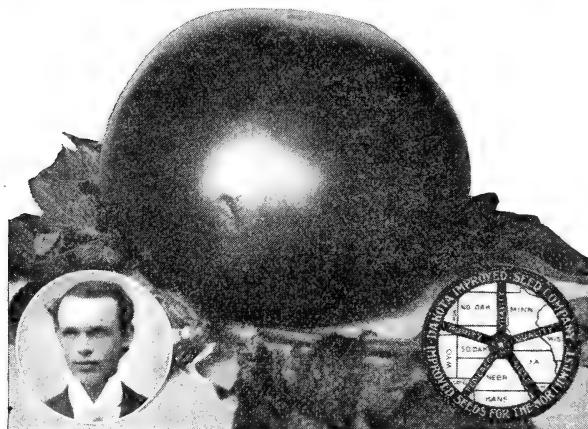


FOUR NEW VARIETIES, ALL EARLIER THAN THE EARLIANA.

Early tomatoes and big tomatoes always attract a great deal of attention. We have been studying the tomato problem ever since we have been in business and now, for the first time, feel that we have just the varieties suitable for the Northwest.

In presenting to our customers the four new tomatoes listed below, it may appear that we are extravagant in our claims on each of the four and that it would be just as well to pick out one and center our attention on it rather than to offer the four varieties. However, when one grows these four side by side, as they were grown this summer in our trial grounds, there appear strong points in each one. The four are entirely different. Each one has its strong points. It may be that in certain localities one of the four would overshadow all the others, in another locality another variety may shine in particular, but in our trial grounds and everywhere else where these have been grown where we have had an opportunity of making a comparison they are all better than any of the standard varieties. We are so confident that we have in these four tomatoes just what the gardeners have been looking for that we want every gardener in the Northwest to give them at trial. As an inducement, we authorize the offering of special premiums listed below at our County and State Fairs.

The seeds of these four new varieties as well as those of the Earliana and Chalk's Early Jewel, which we offer in our list of standard varieties are all Dakota grown. The larger part of them were grown at Brookings, S. D., the remaining portion in Davison County in the vicinity of Mitchell. We find that our home-grown tomato seed is giving especially good returns throughout our territory. It costs from three to five times as much to grow tomato seed here as it does to grow it in the localities where tomato seeds are usually produced for the trade. We are pleased, therefore, to be able to offer this home-grown seed this year. Previous to this time we have been unable to secure them grown here in the way we would wish them grown.



been grown by Mr. A. E. Thornber of Brookings, S. D. He has continually selected it for uniformity in shape and for large size and at the same time has looked to the point of earliness so that it to-day ranks as the earliest large-fruited variety we know of. The plants grow very large and spread on the ground. The foliage is plentiful and medium light in color. The fruits are large, red, solid and smooth. Many of them weigh from $\frac{3}{4}$ to $1\frac{1}{2}$ pounds each and there are very few small fruits produced. The flavor of the fruit is fine and there are very few seeds. The first picking of this tomato in 1909 was made July 28th. At this time it sold in the Brookings market for \$6.00 per bushel. Later and throughout the season, it brought 25% more in price than any other variety on account of its appearance, quality and good keeping. In Brookings and vicinity, all gardeners who know this variety will grow no other. Wherever it has been tried in other parts of the state, it has given equal satisfaction so we feel entirely justified in giving special attention to this variety and placing back of it our unqualified recommendation. Pkt. 20 cts.; 3 pkts. for 50 cts.

EARLY JUNE

This variety has been introduced by Henry Field of Shenandoah, Iowa. He is noted for being an enthusiastic grower and when he gets a thing that he thinks is right, he isn't afraid to say so. He describes this variety as "A new early tomato, earlier than Earliana, large and smooth as Stone and solid as Ponderosa." We have tried it but one year in our trial grounds. The results of this year's trial fully warrant everything that Henry Field has said about this tomato. The tomatoes grow very large and smooth and begin ripening August first. This makes it almost as early as Thornber and earlier than the Dakota Farmer in this one season's trial. If, in future trials, it shows up as well as it has this year, it will be a rival to any variety that has yet been offered. We have only a very limited amount of seed of this variety so we cannot promise to fill all orders. All we can say is "first come first served." Price per pkt., 20 cts.; 3 pkts., for 50 cts.

THE THORNBER

700 Bushels of Ripe Fruit
from One-half Acre in
1909, at Brookings,
South Dakota

When we offered the Dakota Farmer tomato last year in our catalog, we recommended it very highly. We do not wish to retract, in the least from the statements that we made at that time regarding that variety. In the Thornber, however, we have one which we think in several ways very decidedly surpasses the Dakota Farmer, especially for the home-garden and for home market. The Thornber tomato has

for ten years. He has continually weighed from $\frac{3}{4}$ to $1\frac{1}{2}$ pounds each and there are very few small fruits produced. The flavor of the fruit is fine and there are very few seeds. The first picking of this tomato in 1909 was made July 28th. At this time it sold in the Brookings market for \$6.00 per bushel. Later and throughout the season, it brought 25% more in price than any other variety on account of its appearance, quality and good keeping. In Brookings and vicinity, all gardeners who know this variety will grow no other. Wherever it has been tried in other parts of the state, it has given equal satisfaction so we feel entirely justified in giving special attention to this variety and placing back of it our unqualified recommendation. Pkt. 20 cts.; 3 pkts. for 50 cts.

SPECIAL OFFER.

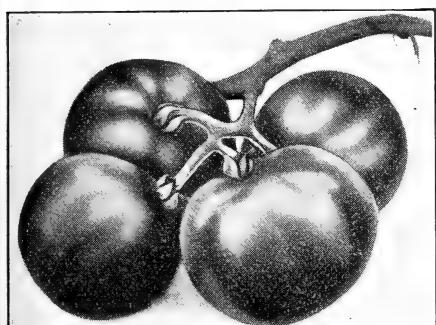
One Packet of each of
The BIG FOUR Wonderful
Tomatoes for 35 cents.



THE YAKIMA, the Earliest Tomato of the Big Four.

This tomato was secured from North Yakima, Wash. two years ago for trial but without a name. It has been grown by Mr. Thornber at Brookings for two years and has proved to be the earliest variety that he has grown and he has tested nearly all of the standard varieties. Compared with the three others of THE BIG 4, it is the earliest of them all. Besides being early, it is very productive of early tomatoes. It does not produce one or two ripe tomatoes and then wait a week before giving another ripe fruit. Mr. Thornber has picked as much as a bushel and a half of ripe fruit from a single plant of the Yakima in two pickings.

In shape and size the Yakima is not equal to the Thornber, but it is very much better in this respect than the Earliana or any other early tomato. A peculiarity of the plant is that it spreads in such a way as to expose the fruit to the sun so that it ripens very quickly and evenly. The foliage is not so rank as on some other varieties. So far as our own experience goes with this tomato, we can give it the strongest recommendation as an extremely early variety, and think that it is decidedly worthy of trial by anyone who wishes the earliest market variety that he can secure. Most of the extremely early varieties are irregular in shape and unattractive. The Yakima is better in this respect than any of the other early tomatoes. Its dark red fruits present a very attractive appearance. Pkt. 10 cts.; 3 pkts. for 25 cts.



of the localities where it has been tried. In our description last year we stated that it was only a few days later than the Earliana. In our trials this year it was fully as early as the Earliana, but was not equal in earliness to the Thornber, the Yakima or the Early June. In general appearance and freedom from seeds, the Dakota Farmer is without a superior. It won first premium at the South Dakota State Fair as exhibited by Mr. Thornber, also first premium at the Brookings County Fair as exhibited by Mrs. Yule of Brookings. Dr. Youngman, of Canon City, Colo., who has given considerable attention to tomatoes, writes as follows: "I matched the Dakota Farmer tomato against the Earliana and two other much praised tomatoes and it beat them all in earliness and quality." At Madison, S. D., where this variety originated it has proved the most productive of all varieties. Single plants have produced over 100 saleable tomatoes, many of which would weigh over a pound. The fruits do not have the deep cavity at the stem like most other varieties and they have no core. It is one of the best shippers and keepers. This variety ought to be tried by every tomato grower. Pkt. 10 cts.; 3 pkt. for 25 cts.; $\frac{1}{2}$ oz., 60 cts.; oz., \$1.00.

\$150 Worth of Premiums on "THE BIG 4" TOMATOES

The State Fair Association of North and South Dakota and Minnesota are hereby authorized to offer the following premiums on "THE BIG 4" tomatoes.

For the best exhibit of 6 Thornber Tomatoes:

1st. Collection of Garden Seeds, Winner's Selection, to the value of	\$10.00
2nd. Collection of Garden Seeds, Winner's Selection, to the value of	5.00
3rd. Collection of Garden Seeds, Winner's Selection, to the value of	3.00
8 Next Best, Garden Seed Collection, each \$1.00. Total	8.00

For the best collection of "The Big 4" varieties of tomatoes, 6 fruits of each variety, namely: Thornber, Yakima, Dakota Farmer and Early June:

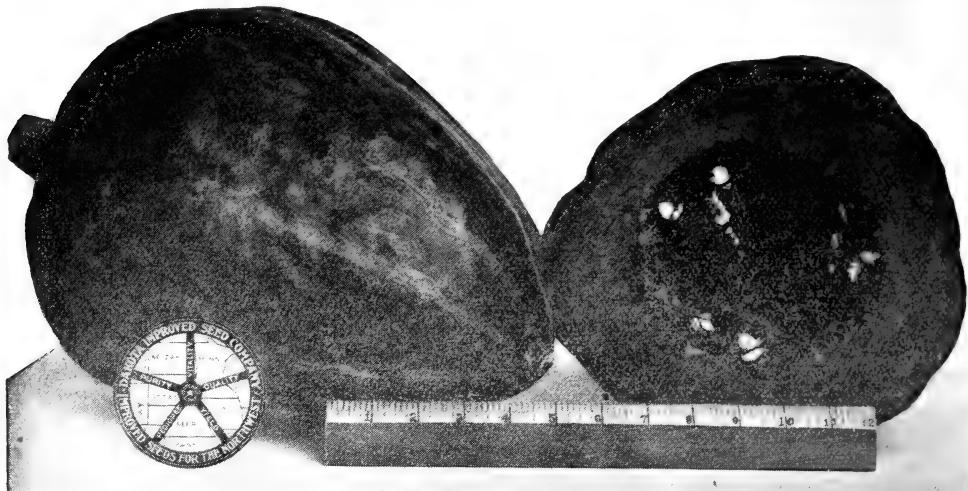
1st. Collection of Garden Seeds, Winner's Selection, to the value of	\$10.00
2nd. Collection of Garden Seeds, Winner's Selection, to the value of	5.00
3rd. Collection of Garden Seeds, Winner's Selection, to the value of	3.00
8 Next Best, Garden Seed Collection, each \$1.00. Total	8.00

Total value of offer for each of the three states

\$50.00

SQUASH

Culture: Same as for cucumber except the hills should be 8 or more feet apart.



DELICIOUS SQUASH

Delicious. No squash excels this in fineness and compactness of grain, dryness, sweetness and richness of flavor. An excellent winter squash for general culture. Our seed of this variety has been saved from selected specimens grown in Stanley County, South Dakota. This stock is extra fine. $\frac{1}{3}$ oz., 5 cts.; oz., 15 cts.; $\frac{1}{4}$ lb., 35 cts.; lb., \$1.00, postpaid.

Hubbard. The popular standard variety for winter use. Shell dark green, flesh bright orange yellow, fine-grained, very dry and of rich flavor.

Wanted Hubbard. Similar to the common Hubbard, but in general more warty. Very striking in appearance; grows larger than the common Hubbard.

Mr. W. A. Wheeler,

Canon City, Col., Nov. 19, 1909.
Thinking it might encourage you in your effort to improve seed and give it to the people at an unreasonably low price compared with the prices charged by the established seed houses, I want to say to you that I paid 50 cents for one paper of fancy pansies from one seed house, 25 cents each for two papers from another house, and 5 cents for a packet from you and got as fine flowers and more plants from your five cent paper of pansies than from those that were high priced and brilliantly illustrated.

Your strain of Early Jersey Wakefield is the best I ever got. The grocery man to whom I took some said they were the finest cabbage brought to his store this summer. The Early Winnigstadt all headed and were as solid as rocks. If I wanted to make a striking ad, I'd draw a battery of artillery in the thick of a great battle using your Winnigstadt cabbage for artillery balls. Your Danish Ball Head gave 90 per cent of large hard heads. Indeed, they were too large for family use and had to be sent to the kraut factory where they were very welcome and much admired. But from this time I shall plant only the Winnigstadt and Early Jersey Wakefield. The Wakefield gave practically two crops. From 2 to 5 heads solid as stones and as big as base balls formed on each stump after the cabbage proper had been cut.

I matched the Dakota Farmer against Earliana and two other much praised tomatoes and it beat them in earliness and quality. I hope you may succeed for I believe you are worthy and my experience with your seed is the ground for my faith.

Respectfully, T. H. YOUNGMAN.

Dakota Improved Seed Co.,

Brookings, S. D., Nov. 27, 1909.
For the past ten years I have been buying my garden seeds of different seed companies. Last year I decided to use your vegetable seeds as I was going to run a large market garden. I found the statements on your packages as to the percentage that grew very valuable and found these statements to very nearly represent what actually grew in the garden. Your packages were very liberal. I can say that I never had as good a garden as I had this last year. Everything grew and did fine.

You will receive my seed order for the coming season as well as that of a great many others in Brookings who saw and admired my garden. I showed quite a number of things at the State Fair at Huron and took 25 premiums. I also took the first prize at the County Fair at Brookings for the best display of vegetables, showing about 40 varieties. All of these were grown from your seeds. Hoping you will prosper, I am,

Very truly yours, A. E. THORNBERRY.

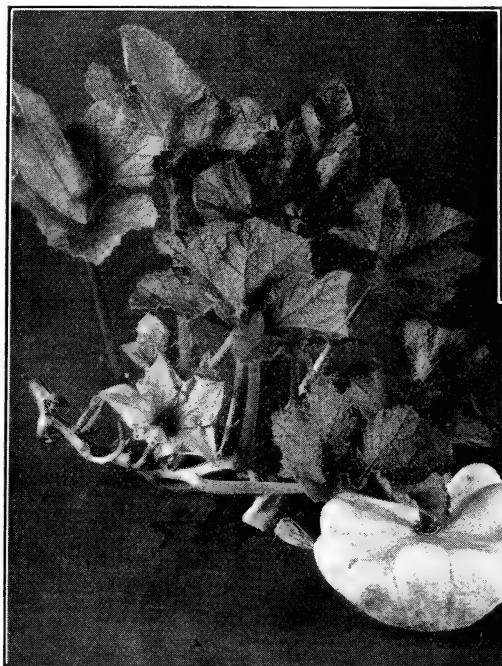


**Mammoth Chili Squash Weighing 103 Pounds,
Grown by Prof. H. B. Mathews, Brookings, S. D.**

Mammoth White Bush. A large strain of the Early White Bush summer squash. Nearly as early as the smaller strains and about twice the size.

Golden Custard. This is the mammoth strain of Golden Bush summer squash, similar to the Mammoth White Bush except in color. A valuable summer variety.

Yellow Summer Crookneck. A true bush in habit of growth; very early and productive.



MAMMOTH WHITE BUSH SQUASH

Mammoth Chili. With nearly everything we grow, size is one of the first considerations. It is the largest ear of corn, the largest squash or the largest pumpkin that attracts the most attention at our county and state fairs. The Mammoth Chili is the largest variety of squash grown. If you wish to take the premium at your state or county fair on the largest squash try this. $\frac{1}{3}$ oz., 10 cts.; oz., 20 cts.; $\frac{1}{4}$ lb., 50 cts.; lb. \$1.25, postpaid.

Sibley or Pike's Peak. An old standard variety of fine flavor and remarkable keeping qualities. The same season of Hubbard and very productive. In size about the same as Golden Hubbard.

Golden Hubbard. This variety is similar to the Hubbard, but has a skin of bright red color. It is somewhat smaller and earlier than the common Hubbard, but is equally as productive and fine in quality.

White Summer Crookneck. Similar to Yellow Summer Crookneck, except in color.

Any variety except where noted: $\frac{1}{3}$ oz., 5 cts.; oz., 10 cts.; $\frac{1}{4}$ lb., 30 cts.; lb. 75 cts.

Have you read on back cover page about our special \$1.00 collections of vegetable and flower seeds?

PUMPKIN

Among the varieties of pumpkin that are grown, the Connecticut Field is probably the most desirable one for field planting in our latitude. As pie pumpkins we especially recommend the Japanese and the Small Sugar as the two that have especially demonstrated their value as to productiveness, early maturity and quality.

Culture: Same as for cucumber. The hills should be 8 or more feet apart. Field varieties are commonly grown in corn fields by sowing seeds in every third or fourth hill.

Connecticut Field. This is the earliest field pumpkin. Immensely productive and commonly grown in corn fields for stock feeding. Also good for pies. Oz., 5 cts.; $\frac{1}{4}$ lb., 15 cts.; lb., 40 cts., postpaid. By express or freight, lb., 30 cts.; 10 lbs., \$2.00.



SMALL SUGAR PUMPKIN

resembling the field variety in color and shape, but of very much smaller size, averaging from 8 to 12 inches in diameter. Is as fine-grained as average squash and of excellent flavor. $\frac{1}{3}$ oz., 5 cts.; oz., 10 cts.; $\frac{1}{4}$ lb., 25 cts.; lb., 70 cts., postpaid.

Tennessee Sweet Potato. Bell shaped; flesh thick white, fine for pies. $\frac{1}{3}$ oz., 5 cts.; oz., 15 cts.; $\frac{1}{4}$ lb., 35 cts., lb., 80 cts., postpaid.

King of the Mammoths. A pumpkin of immense size: matures rather late for the extreme north. Flesh is thick, bright yellow, fine-grained and excellent for pies. $\frac{1}{4}$ oz., 5 cts.; oz., 20 cts.; $\frac{1}{4}$ lb., 50 cts.; lb., \$1.25, postpaid.

Japanese Pie. This variety is both curious and useful. The skin is deep green with dark stripes which turn to golden yellow. Seeds are peculiarly marked. The seed cavity is small and the neck is solid flesh. Matures early and is of the finest quality. We know of no better pie pumpkin. $\frac{1}{3}$ oz., 5 cts.; oz., 15 cts.; $\frac{1}{4}$ lb., 35 cts.; lb., 85 cts., postpaid.

Quaker Pie. A very prolific pie pumpkin. Flesh fine-grained and rich in flavor. Excellent keeper if stored in warm place. $\frac{1}{3}$ oz., 5 cts.; oz., 15 cts.; $\frac{1}{4}$ lb., 35 cts.; lb., 80 cts., postpaid.

Small Sugar. The standard pie pumpkin,

resembling the field variety in color and shape, but of very much smaller size, averaging from 8 to 12 inches in diameter. Is as fine-grained as average squash and of excellent flavor. $\frac{1}{3}$ oz., 5 cts.; oz., 10 cts.; $\frac{1}{4}$ lb., 25 cts.; lb., 70 cts., postpaid.

MISCELLANEOUS VEGETABLES

Asparagus, Conover's Colossal: The popular variety. $\frac{1}{3}$ oz., 5 cts.; oz., 10 cts.

Broccoli, Purple Cape: The standard purple variety. Pkt., 5 cts.; oz., 35 cts.

Brussels Sprouts, Improved Dwarf: A very good sort. Pkt., 5 cts.; oz., 20 cts.

Egg Plant, Early Dwarf Purple: One of the earliest and most productive varieties. Pkt., 5 cts.; oz., 50 cts.

Endive, White Curled: Finest cut and curled. Pkt. 5 cts.; oz., 15 cts.

Kale, Curled Mosbach: Dwarf, compact, light green foliage. Pkt., 10 cts.

Kohl-Rabi, Early White Vienna: The best sort for table use. Pkt. 5 cts.; oz. 25 cts.

Leek, Carentan: Standard variety with dark colored leaves. Pkt. 5 cts.

Okra, White Velvet: Produces large, round, smooth pods, velvety white in color, $\frac{1}{3}$ oz., 5 cts.; oz., 10 cts.

Parsley, Moss-Curled: Densely crumpled and curled. **Fern-Leaved:** Beautifully curled. **Plain:** The ordinary form. Any variety, pkt., 5 cts.; oz., 10 cts.

Salsify, Mammoth Sandwich Island: Roots of superior quality and double the size of the old variety. Pkt., 5 cts.; oz., 15 cts.; $\frac{1}{4}$ lb., 35 cts.; lb. \$1.00.

Spinach, Long Standing: Leaves large and thick, dark green in color. $\frac{1}{3}$ oz., 5 cts.; $\frac{1}{4}$ lb., 15 cts.; lb., 35 cts.



Market Gardeners' Wholesale Price List



Many of the market gardeners have called our attention to the fact that our prices on vegetable seeds were higher than they could afford to pay and that seeds could be purchased at a lower price elsewhere. For this reason we have not had the share of their business that we thought we ought to have. We realize that their business and their profits depend very largely upon the quality of seed that they use in growing their crops and that it would not be wise for them to use seed which was doubtful in quality. We have been offering the highest grade seed that was available and have been giving information about these seeds that no other seedsmen furnish with the seeds they sell. It is true that this labor that we take in the securing of the germination of our seeds and letting them know where they were grown and when they were grown, incurs additional expense. However, we have compared our prices with those of other reputable seed houses and find that they are not in general higher than the prices of others and in many respects they are lower. This season, however, we wish to make a special inducement to have market gardeners in the Northwest give our stocks a trial. To bring this about we are making these special prices to market gardeners. We think that they are as low as those made by any other reputable seed firm in the Northwest.

These prices will apply on any order for garden seeds sent in to the amount of \$10.00 or over. After a gardener has already sent in an order to this amount and wishes to place additional orders, this list may also be used. Cash must in every case accompany the order. We furnish all sacks and containers of any kind that are necessary in making shipment, but the freight or express must in all cases be paid by the receiver. No discounts of any kind will be allowed from this price list.

BEANS.

½ pk. pk. ½ bu. bu.

Burpee's Str. Green				
Pod	\$.75	\$1.25	\$2.25	\$4.25
Giant Str. Green Pod.	.75	1.25	2.25	4.25
Early Red Valentine	.65	1.10	2.10	4.00
Currie's Black Wax	.75	1.25	2.25	4.25
Wardwell's Kidney Wax	.75	1.40	2.50	4.50
Pencil Pod Black Wax	.75	1.25	2.25	4.25
Webber Wax, (new)	.90	1.60	3.00	5.75
Detroit Wax	.75	1.25	2.25	4.25
Refugee Wax	.75	1.25	2.25	4.25
White Navy or Pea Bean				(According to Market)
Henderson's Bush Lima	.90	1.65	3.00	5.75
Burpee's Bush Lima	.90	1.70	3.25	6.25
Sieb. Early Pole Lima	.90	1.70	3.25	6.25

BEETS FOR THE TABLE.

½ lb. lb.

Crosby's Egyptian	.25	.45
Crimson Globe	.25	.45
Eclipse	.25	.40
Edmund's Blood Turnip	.25	.40
Detroit Dark Red	.25	.45

MANGEL WURZEL.

Mammoth Long Red	.15	.25
Giant Yellow Intermediate	.15	.25
Golden Tankard	.15	.25

SUGAR BEETS.

Klein Wanzeben	.15	.25
Vilmorin's Improved	.15	.25

CABBAGE.

¼ lb. ½ lb. lb.

Eureka or First Early	.50	.80	1.50
Early Jersey Wakefield	.50	.80	1.25
Charleston Wakefield	.50	.80	1.35
Early Winnigstadt	.40	.60	1.00
Early Spring	.40	.60	1.00
Early Summer	.40	.60	1.00
All Seasons	.50	.80	1.25
Holland	.60	1.10	2.00
Danish Ball Head	.60	1.10	2.00
Bridgeport Drumhead	.50	.80	1.25
Premium Flat Dutch	.50	.80	1.25

CARROT.

Early Scarlet Horn	.35	.60
Danvers Half Long	.35	.60
Chantenay	.35	.60
Oxheart or Guerande	.35	.60
Long Orange	.30	.45
Mastodon	.35	.60
Victoria	.35	.60

CAULIFLOWER.

½ oz. oz.

Early Snowball	.90	1.50
Earliest Dwarf Erfurt	.60	1.00

CELERY.

oz. ¼ lb. ½ lb.

Golden Self Blanching	.25	.55	.90
White Plume	.20	.40	.75
Kalamazoo	.25	.70	1.25
Giant Pascal	.20	.40	.65

SWEET CORN.

½ pk. pk. ½ bu. bu.

Malakoff	.85	1.50
Golden Bantam	.75	1.25
White Mexican	.50	.85
White Cory	.50	.85
Red Cory	.50	.85
Crosby's Early	.50	.85
Dan West	.50	.85
Early Minnesota	.50	.85
Black Mexican	.60	1.00
Early Champion	.60	1.00
Early Evergreen	.50	.90
White Evergreen	.50	.90
Stowell's Evergreen	.50	.90
Country Gentleman	.75	1.25

CUCUMBER.

½ lb. lb.

Aksarben White Spine	.45	.75
Arlington White Spine	.45	.75
Improved Early White Spine	.50	.90
Extra Long White Spine	.45	.70
Cumberland	.35	.50
Everbearing	.50	.90
Chicago Pickle	.50	.90
Improved Long Green	.45	.80
Early Cluster	.50	.90

LETTUCE.

¼ lb. ½ lb. lb.

May King	.25	.45	.80
Black Seeded Simpson	.20	.40	.70
Grand Rapids	.25	.50	.90
Hanson	.20	.40	.70
Iceberg	.20	.40	.70
Prize Head	.20	.40	.70
California Cream Butter	.20	.40	.70
Morse	.20	.35	.60

MUSK MELON (Very Short Crop.)

Rocky Ford	.30	.55	1.00
Emerald Gem	.35	.60	1.20
Early Green Nutmeg	.30	.55	1.00
Early Hackensack	.30	.55	1.00
Burrell's Gem	.30	.55	1.00

WATER MELON.

¼ lb. ½ lb. lb.

Cole's Early	.15	.25	.45
Phinney's Early	.15	.25	.45
Fordhook Early	.15	.25	.45
Dark Icing	.15	.25	.45
Florida Favorite	.15	.25	.45
Ice Cream or Peerless	.15	.25	.45
Kleckley's Sweet	.20	.30	.55
Sweetheart	.15	.25	.45
Halbert Honey	.15	.25	.45

ONION.

Large Red Globe	.50	.90	1.75
Large Red Wethersfield	.45	.80	1.55
Yellow Globe Danvers	.45	.80	1.55
Southport Yellow Globe	.45	.80	1.55
Southport Red Globe	.50	.85	1.65
Southport White Globe	.75	1.40	2.65
Mammoth Silver King	.45	.80	1.50
Prizetaker	.50	.90	1.75
Early White Welsh	.40	.75	1.45
White Barletta	.45	.80	1.50

ONION SETS.

Prices on Application.

PARSNIP.

Hollow Crown	.20	.35
Improved Guernsey	.20	.35

PEAS.

	1/2 pk.	pk.	1/2 bu.	bu.
First and Best	.70	1.20	2.25	4.00
Earliest of All or				
Alaska	.75	1.30	2.35	4.25
American Wonder	.75	1.35	2.50	4.75
Nott's Excelsior	.75	1.35	2.50	4.75
Premium Gem	.75	1.35	2.50	4.50
Surprise	.75	1.35	2.50	4.75
Everbearing	.75	1.35	2.50	4.50
Gradus	.85	1.50	2.75	5.00
Advancer	.75	1.35	2.50	4.75
Potlatch	.75	1.35	2.50	4.50
Horsford Market				
Garden	.75	1.35	2.50	4.50
Sutton's Peerless	.75	1.35	2.50	4.50
Alderman	.75	1.35	2.50	4.50

PUMPKIN.

	1/2 lb.	lb.
Connecticut Field	.15	.25
King of the Mammoths	.35	.60
Japanese Pie	.35	.60
Quaker Pie	.35	.60
Small Sugar	.25	.40
Tennessee Sweet Potato	.35	.60

RADISH.

Icicle	.20	.30	.50
Rosy Gem	.20	.30	.50
French Breakfast	.15	.25	.40
Chartier	.15	.25	.40
Scarlet China Winter	.20	.30	.50

SALSIFY.

Mammoth Sandwich Island	.25	.45	.75
SPINACH.			

Long Standing	.20	.35
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SQUASH.

Improved Hubbard	.20	.30	.50
Warted Hubbard	.20	.30	.50
Delicious	.30	.50	.90
Golden Hubbard	.20	.30	.50
Mammoth Chili	.40	.60	.90
Sibley or Pike's Peak	.20	.30	.50
Mammoth White Bush	.20	.30	.50
Yellow Summer Crookneck	.20	.30	.50
White Summer Crookneck	.20	.30	.50

TOMATO.

(See "The Big 4" on pages 58 and 59)			
Earliana (Dakota grown)	.30	1.00	1.75
Chalk's Early Jewel (Dakota Grown)	.30	1.00	1.75
Dakota Farmer (new)	.75	2.25	
Dwarf Champion	.20	.50	.85
Acme	.20	.50	.85
Beauty	.20	.50	.85
Matchless	.20	.50	.85
Ponderosa	.30	1.00	1.75
Golden Queen	.20	.50	.85
Yellow Pear	.25		
Red Cherry	.25		
Ground Cherry	.25		

TURNIP.

	1/4 lb.	1/2 lb.	lb.
Extra Early Milan	.20	.35	.60
Purple Top Strap Leaf	.15	.25	.35
Golden Ball	.15	.25	.40
White Globe	.15	.25	.40
Purple Top Rutabaga	.15	.25	.35

No market gardener can afford to be without our "Big 4" collection of early tomatoes described on pages 58 and 59. All earlier than Earliana and equal in quality and size to the later varieties.

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Special Collection Offers



It takes some time to make your selections of seeds for the garden and also some time to write out your order. As we realize this and know that there are certain things that should be in every garden we have made up the following collections to include these sorts. Other varieties which may be desired can be ordered at the same time at catalog price but no changes can be made in the varieties listed in the collections at the special collection price. We are able to make these offers at the special reduced price only by making up a large number of collections at one time so please do not request any changes. In ordering simply list one or the other or both collections and then add to your order whatever other varieties you may wish.

\$1.00

WHEELER'S MODEL GARDEN COLLECTION

\$1.00**\$1.75 WORTH OF CHOICEST GARDEN SEEDS SENT POSTPAID FOR \$1.00.**

This collection of vegetable seeds has been made up after much thought and study as to what varieties go to make up an ideal assortment. The kinds in this collection are the ones needed in every garden. Others may be added for larger gardens but these will meet the needs of the small home garden. We are able to make this offer only by making up a very large number of collections at a time so no change can be made in any of the varieties listed.

1-3 pt. Beans, Pencil Pod Black Wax..	\$.10	1-3 oz. Pumpkin, Japanese Pie .....	.05
1-3 oz. Beet, Crimson Globe .....	.05	1-3 oz. Radish, Icicle .....	.05
1-3 oz. Carrot, Oxheart .....	.05	1-3 oz. Radish, Chartier .....	.05
1 pkt. Cabbage, Charleston Wakefield..	.10	1-3 oz. Salsify, Mammoth Sandwich Island .....	.05
1 pkt. Cabbage, Bridgeport Drumhead..	.05	1-3 oz. Squash, Hubbard .....	.05
1 pkt. Celery, Golden Self-Blanching..	.10	1-3 oz. Squash, Mammoth White Bush..	.05
1-3 pt. Sweet Corn, Dan West .....	.10	1 pkt. Tomato, Yakima .....	.10
1-3 oz. Cucumber, Arlington White Spine .....	.05	1 pkt. Tomato, Thornber .....	.20
1-3 oz. Lettuce, black seeded Simpson..	.05	1 pkt. Turnip, Extra Early Milan .....	.10
1-3 oz. Musklemon, Early Green Nutmeg .....	.05	1 pkt. Watermelon, Cole's Early .....	.05
1-3 oz. Parsnip, Hollow Crown .....	.05	1 oz. Sweet Peas, Finest Mixed .....	.10
1 pkt. Onion, Large Red Globe .....	.05		
1-3 pt. Peas, Premium Gem .....	.10	Total Catalog Value	\$1.75

OUR SPECIAL COLLECTION PRICE, \$1.00.

Our "Home Beautifier" Collection of Flowers

\$1.75 WORTH OF FINEST FLOWER SEEDS AND BULBS SENT POSTPAID FOR \$1.00.

This assortment consists of those flowers that should be in every kitchen garden. It includes the easily grown and free flowering annuals. No farmer should let his wife go without flowers when he can secure a collection like this for \$1.00. The best way to do is to order the collection and make her a present of it. The Gladiolus alone are worth the price of the whole collection.

Asters, Finest Tall Mixed	\$.10	Nasturtiums, Finest Tall Mixed .....	.05
Balsams, Double Camellia-flowered ..	.05	Petunia, Fine Mixed .....	.05
Candytuft, All colors mixed .....	.05	Phlox, Large-flowered mixture .....	.05
Sweet Sultan, Finest colors mixed ..	.10	Poppy, Special Double Mixed .....	.05
Cypress Vine, Finest mixed .....	.05	Portulaca, All Colors Mixed .....	.05
Pinks, Choicest Double Mixed .....	.05	Castor Bean, Mixed Varieties .....	.05
California Poppy, Glory of the West..	.10	Sweet Alyssum .....	.05
Four-o'clock, Finest Mixed .....	.05	Zinnias, Finest Double .....	.05
Larkspur, Double Tall Rocket .....	.05	Sweet Peas, Finest Mixed, 1 oz .....	.10
Mignonette, Giant Pyramidal .....	.05	Verbena, Mammoth Mixed .....	.05
Morning Glory, All colors mixed ..	.05	Gladiolus, Finest Varieties .....	.40
Pansies, Premium Mixture of finest sorts .....	.10	Total catalog value	\$1.75

OUR SPECIAL COLLECTION PRICE \$1.00.

You cannot afford to be without one or both of the above collections—one to supply vegetables for your table and the other to furnish flowers for decorating the home. The seeds used are the very choicest that can be secured and are included under our regular guarantee that our seeds shall be as represented or money refunded.





NOTES ON

WHEELER'S SEED BOOK FOR 1910



Note 1—The 10 ears of Payne's White Dent shown on page 14 took sweepstakes for the Northern District at the South Dakota State Corn Show at Mitchell, January 17th-22nd, 1910. The 10 ears of Early Pride shown on same page took second premium on yellow dent for Northern District. The 10 ears of Brown County Yellow Dent shown on page 13 took first premium in the special class for this variety.

Note 2—Since our catalog has gone to press we have secured a very good stock of Rustler White Dent corn from central Minnesota. The germination test is over 90 per cent. We offer this shelled and graded at \$3.00 per single bushel or \$2.75 per bushel in lots of 5 bushels or over.

Note 3—A word of warning. Over half of our stock of Minnehaha White Dent Corn has been sold at the present time. Early orders will get the remainder. Our Early Murdock is going fast. We will accept orders as long as our stock lasts. Late orders may have to be refused. It is advisable to get all orders for corn in as early as possible.

Note 4—Before ordering your grass, clover or alfalfa seed please read page 28. It may set you to thinking about some things.

Note 5—If you intend to grow potatoes this year, make your plans to spray early. The spraying equipment described on page 37 just fills the bill.

Note 6—If interested in tomatoes, don't overlook "THE BIG 4" on pages 58 and 59. None like them ever offered before in the Northwest.

Note 7—If you don't like to take time to write out your whole order for vegetable or flower seed, just write for "Wheeler's Model Garden Collection" and the "Home Beautifier Flower Collection" and save this trouble. They are listed on back cover. You need both collections.



DAKOTA IMPROVED SEED CO.
MITCHELL, SOUTH DAKOTA





Important



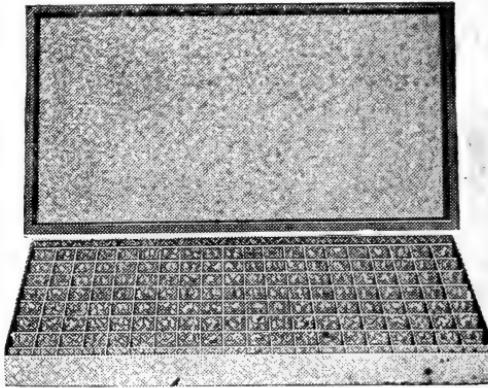
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HOLDEN'S IDEAL CORN TESTER

Just what you are looking for. Just what you need. Just out.

Simple, durable, quick, practical, accurate.

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Since WHEELER'S SEED BOOK FOR 1910 went to press this new Tester has been introduced to meet the demands of the smaller corn grower. This is just what the farmer has been looking for and asking for since testing was first recommended. It is truly the farmer's friend.

HOLDEN'S IDEAL CORN TESTER is used by the Iowa State College and the Iowa Corn Grower's Association in testing corn at their annual corn shows. They will use no other.

NOTE—The No. 1 Box Tester listed on page 11 of "Wheeler's Seed Book for 1910, at \$7.50 should be \$10.00. This raise in price is forced upon us by the extra cost of materials used in its construction.

Write for booklet giving full descriptions and particulars.

DAKOTA IMPROVED SEED CO.
MITCHELL, SOUTH DAKOTA

From

.....

.....

DAKOTA IMPROVED SEED CO.

W. A. WHEELER, Manager

Mitchell

South Dakota

